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Carter & Burgess
Re-evaluated categorical exclusion for F 2-2(4) 70 Plevna-Baker, US Highway #12, Fallon

# RE-EVALUATED CATEGORICAL EXCLUSION
for
F 2-2 (4) 70

Plevna-Baker
US Highway #12
Fallon County, Montana
Control No. 1276

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Submitted Pursuant to:

23 CFR 771.117(d)
and
ARM 18.2.261 Sections 75-1-103 and 75-1-201, MCA

Submitted By:

CARTER & BURGESS, INC.
for the
MONTANA DEPARTMENT OF TRANSPORTATION

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RE-EVALUATED CATEGORICAL EXCLUSION
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F 2-2 (4) 70

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US Highway #12
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RCE Concurrence Request Letter to Jerry J. Cloud, FHWA

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Marc Racicot, Governor

April 11, 1996

Mr. Jerry J. Cloud, Acting Division Administrator
Federal Highway Administration (FHWA)
301 So. Park, Drawer 10056
Helena, MT 59626

Subject: F 2-2 (4) 70
Plevna-Baker
Control No. 1276

This is a request for the FHWA's concurrence that this proposed project still qualifies as a Re-Evaluated Categorical Exclusion under the provisions of 23 CFR 771.129(c). The previous Categorical Exclusion for this project was approved by the FHWA on April 21, 1987. A copy of this document is attached in Appendix A. See Figure 1 for Regional map.

This proposed project consists of three general elements. The first is the complete reconstruction of a small portion of the exiting roadway. The second is the construction of a new road on an offset alignment. The final element is the obliteration of that portion of the existing roadbed which will be replaced by the new alignment. The complete reconstruction of the existing roadway is from kilometer/km 112.7± (Milepost/MP 70± project start) to km 113.2± (MP 70.3±) and from km 132.5± (MP 82.3±) to km 132.9± (MP 82.6± project end). This reconstruction will include grading, drainage, gravel basecourse, plant mix surfacing, removal and two new bridges. A finished surface width of 8.5 meters (28 feet) is proposed for a future proposed roadway surface width of 11.0± meters (36.0± feet). The new proposed alignment will run roughly 15 meters (50 feet) offset and parallel to the existing roadway for the majority of the project. The proposed new alignment is northerly of the existing highway from kms 113.2± to 114.1± (MPs 70.3± to 70.9±), crossing to its southwesterly side from kms 114.1± to 114.4± (MPs 70.9± to 71.1±), and over to the northeasterly side between kms 114.4± and 124.3± (MP 71.1± to 77.25±). It then crosses to the southerly side from km 124.3± to 132.5± (MPs 77.25± to 82.3±). The existing roadbed [kms 113.2± to 132.5± (MPs 70.3± to 82.3±)] will be obliterated, seeded and graded to generally match the adjacent existing conditions.

The bridges crossing Sandstone Creek at km 113.9± (MP 70.8±), and the Baker Lake overflow channel at km 132.6± (MP 82.4±) are proposed to be replaced. Culverts are proposed for the following existing (timber) bridge locations:

km	(MP)	spans	crossing
116.4±	(72.3±)	1	stockpass
120.2±	(74.7±)	2	unnamed tributary of Sandstone Creek and stockpass
122.2±	(75.9±)	1	unnamed tributary of Timber Creek and stockpass
122.85±	(76.3±)	1	stockpass
124.6±	(77.4±)	4	Timber Creek
128.4±	(81.4±)	1	stockpass

Safety enhancement work will involve seal and cover, signing, striping, and other minor necessary items including flatter grades for approaches, new guardrails, new delineators, and new fence.

The project area is rural outside of Plevna and Baker with several residences located within 15.2± to 68.6± meters (50 to 225 feet) of the present and proposed right-of-way, with the closest residence located within about 9.1 to 15.2 meters (30 to 50 feet) of the existing right-of-way.

The location of this project is on U.S. Highway #12 (Primary Route # 2) in Fallon County. It's westerly beginning is km 112.7± (MP 70±), which is west of Plevna and extends east southeasterly 20.3 km (12.6 miles) to the westerly city limits of Baker at km 132.9± (MP 82.6±). See Figure 2 for area Map.

The primary purpose and need for the proposed project is to more efficiently move people and goods by improving mobility and to improve the overall safety conditions on U.S. Highway #12. The intent of this project involves the construction of the proposed new alignment, complete reconstruction of the remaining existing roadway, and the enhancement of safety to achieve a 100 kilometer per hour (60 mph) design speed. Design speed is the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the design features of the highway govern. All design features will comply with the Department of Transportation standards for primary roads.

Section 1: Impact Areas With No Adverse Effect

This proposed project has been evaluated for, and does not have any adverse effect on the following environmental areas of concern:

Air Quality - This proposed project is located in an "unclassifiable"/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's **Final Rules** of November 24, 1993 on Air Quality conformity. Therefore, this proposed project complies with Section 176(c) of the *Clean Air Act* as amended, **42 U.S.C. 7521**(a).

Historical/Cultural Resources - A Cultural Resources Inventory Report was prepared by a Cultural Resources Consultant for MDT on August 21, 1991. No National Register of Historic Places (NRHP) eligible sites were located in the project area. The Montana State Historic Preservation Office (SHPO) concurred with this assessment in a letter dated September 29, 1993. A copy of the SHPO's letter is contained in Appendix B - Agency Correspondence.

Social/Economic/Environmental Justice - The proposed project will not affect, separate, or isolate any distinct neighborhoods, low income groups, ethnic groups, or other specific groups of people. No displacements or relocations will be caused by the project. Therefore, this project will comply with E.O. #12898 concerning environmental justice. A short-term benefit that may be derived from this project is employment for some area residents during construction.

Section 4(f) of the *U.S. Department of Transportation* / Section 6(f) of the *National Land & Water Conservation Fund Acts* [USDOT - 4(f)/NL&WCF - 6(f)] - The proposed project will require additional right-of-way. The proposed project will not require the use of any publicly owned park, recreational area, wildlife and waterfowl refuge lands or affect any NRHP eligible sites, therefore a 4(f) statement will not be required. No Land and Water Conservation Funds have been used on this property, therefore no 6(f) impacts will result from project implementation. The South Sandstone Fishing Access Site/FAS signing is located in Plevna. If construction activities include removal of this sign, it will be re-installed following construction. See the Montana Department of Fish, Wildlife and Parks (MDFW&P) Parks Division letter dated June 1, 1993 in Appendix B - Agency Correspondence.

Threatened/Endangered Species - The U.S. Department of the Interior's Fish & Wildlife Service (USF&WS) was contacted for identifying Federally-listed

Threatened/Endangered Species under *Section 7(a) of the Endangered Species Act* **(16 U.S.C. 1531 - 1543)**. The following Threatened/Endangered Species were identified by the USF&WS, the Bureau of Land Management (BLM) and the **Biological Memorandum** (see Attachment 1) as being in the vicinity of this proposed project:

The following Threatened/Endangered Species may occur in the general project area:

> The bald eagle (Haliaeetus leucocephalus), is a threatened raptor species in Montana.
>
> The peregrine falcon (Falco peregrinus) is an endangered raptor species in Montana.
>
> The black-footed ferret (Mustela nigripes), an endangered predator species in Montana.

As stated in the Biological Memorandum, Threatened/Endangered raptor use of the study area is confined to seasonal migrations.

The proposed project has no effect on either the peregrine falcon, bald eagle, or the black-footed ferret. MDT's standard construction-related measures will be implemented as described in the Biological Memorandum. These include raptor-proofing relocated overhead electric transmission/distribution lines.

Section 2: Impact Areas With Minor Effect

The proposed project will have a minor effect on the following environmental area(s):

Hazardous Waste - Information regarding hazardous materials information was summarized from a subsurface evaluation study of the project corridor completed in winter 1992-1993 by a hazardous waste consultant retained by MDT and subsequent updated information from MDT.

The Plevna Service Station km 113.5 ± (MP 70.5 ± southerly side) has one or two 1135± and/or 1890± liter (300 and/or 500 gallon) underground storage tanks (USTs) on site. Three soil samples have yielded no contaminated soil. It appears the service station pump island is within the existing right-of-way and will have to be removed, along with the USTs, prior to construction. The Montana Department of Environmental Quality

(MDEQ) UST program has contacted the owner of the site concerning the removal of the island and UST's. However, no response from the owner has yet been received.

Subsurface soil tests were conducted by a hazardous waste consultant retained by MDT at the following sites:

Property name	Location	Description	Contamination
(Former) Burlington Northern Property	113.4± (MP 70.45±, N. side)	1990 Leaking (L) UST site	negative
Vacant lot / former service station	Km 113.6± (MP 70.6± S. side)	USTs removed pre 1988	negative
Seven pipeline crossings / Petroleum Pipeline tank farm	Kms 119.4± to 119.6± (MP 74.2± to 74.3±)	Two small storage / pumping stations. No known spills or leaks.	negative
Ready Mix Concrete	Km 132.2± (MP 82.2±, N. side)	Two above ground storage tanks (ASTs). No known spills.	negative
Sinclair Service Station	Km 132.85± (MP 82.55±, N. side)	ASTs and underground pipeline. No reported fuel releases.	negative

There are two oil pipelines running within 9.8± to 65.5± meters (30± to 215± feet) of the existing / proposed right-of-ways south westerly side between kms 120± and 124.25± (MPs 74.6± and 77.2±). A proposed field approach's construction permit at km 122.1± (MP 75.9±) will cross both pipelines. All pipeline crossings will be under the proposed fill areas.

A total of nine timber bridges are proposed to be removed and replaced. A special provision for the salvage of treated timber structures will be included in the construction specifications for this project.

In conclusion, there was no contamination found during MDT's hazardous waste consultant's subsurface investigation. Both the pump island and a fuel line at the Plevna Service Station will need to be removed prior to construction.

Changes in Land Use - A total of approximately 62 hectares (155 acres) of new right-of-way, easements and temporary-use construction permits will be required for this proposed project. This land will be required from 31 parcels totaling about 6,269.6 hectares (15,674 acres).

MDT defines "minor amounts" as 10% of a parcel less than 10 hectares (25 acres) and 1% of a parcel more than 10 hectares (25 acres) in size. A total of 13 of the 31 parcels will exceed the minor amount definition. Despite the fact that these exceedances will occur, the project is not considered to result in significant impacts based on the relatively small impacts to the various resources identified as follows: Impacts to wetlands are limited to 0.03 ha (0.08 acres); impacts to Prime farmland is 0.36 hectares (0.09 acres); impact to the 100-year floodplain is about 0.15 hectares (0.45 acres); additional impervious surfaces total approximately 2.5 hectares (6.1 acres) and finally, less than one percent of the total parcel area affected by the proposed project will be required for ROW, easements and temporary use construction permits.

This project will not induce substantial land use changes or promote unplanned growth. There will be no substantial effects on access to adjacent properties or present traffic patterns.

Prime and Unique Farmlands - The National Resource Conservation Service (NRCS) has not yet published an **Important Farmlands** map for Fallon County. Therefore, the NRCS office in Miles City identified Prime If Irrigated Farmland as being adjacent to, and/or within this proposed project. This is shown on the soil maps for Fallon County. This proposed project will impact 0.036 hectares (0.09 acres) of this Farmland.

An NRCS Farmland Conversion Impact Form (#AD-1006) was completed for this proposed project's impacts to the Prime If Irrigated Farmland in accordance with the *Farmland Protection Policy Act* (**7 U.S.C. 4201, et seq.**). The Total Points on this Form for this proposed project's impacts on this Farmland is 145, which is less than 160. Therefore, under the provisions of 7 CFR 658.4 (c), no additional consideration for projection is necessary. A copy of this #AD-1006 Form is contained in Appendix B - Agency Correspondence.

Floodplains -A floodplain delineated under Federal Emergency Management Administration (FEMA) criteria along Sandstone Creek is encroached by this proposed project in four separate locations. Fallon County administers this floodplain for FEMA, and a Floodplain Development Permit will be required for this encroachment. This is the only floodplain delineated for Fallon County. Other floodplains that may exist within the project area have not yet been delineated.

The floodplain encroachments from this proposed project occur from approximately kms 130.2± to 132.8± (MP 80.9± to 82.6±, project end). Total area of 100-year floodplain that will be affected is roughly 0.15 hectares/ha (0.45 acres). This proposed project will not promote or encourage development within this delineated floodplain, nor increase flood liability hazards from its construction. This proposed project is therefore considered to be in compliance with E.O. #11988.

Stormwater Runoff - Additional impervious surfaces totaling approximately 2.5 ha (6.1± acres) will be constructed as part of the proposed project. There will be a relatively small amount of impervious surface added as part of this proposed project, as well as comparatively low projected average daily traffic volumes. Therefore, the increase in surface runoff for this proposed project will be insignificant. See Permits Required in **Section 3**, following.

Biological Resources - The Montana Natural Heritage Program (MNHP) listed no element occurrences of rare/sensitive species in this proposed project's vicinity. The MDFW&P has stated concern for fish passage in Sandstone Creek in their letter of March 30, 1993 located in Appendix B - Agency Correspondence. No piers will be placed within the active channel of Sandstone Creek. Minimal installation of riprap proposed for this project is not anticipated to result in substantial fisheries impacts. A small colony of cliff swallows seasonally reside beneath the Sandstone Creek bridge. To eliminate any possible disturbance of active cliff swallow nests a Special Provision is being made so that removal of the bridge may not occur between late April and mid-September of any given year. See the Biological Memorandum (BM) in Attachment 1 for a complete discussion of this proposed projects impacts on biological resources.

Wetlands/Section 404 of the Clean Water Act - A total of 0.03± ha (0.08± acres) of wetlands will be subject to unavoidable impacts by this proposed project. Wetlands generally are located in association with the creeks in the project area. Impacts to wetlands generally occur where the proposed project crosses these creeks. One potential mitigation site has been identified for the loss of these wetlands. A full description of wetland impacts and potential mitigation is provided in the Wetlands Finding, included as part of the

Biological Memorandum in Attachment 1 of this document. See Permits Required in **Section 3**, following.

Noise - A traffic noise assessment was conducted by MDT to analyze present and future noise levels within the project study area. Design year (future) noise levels will not increase substantially over existing levels. There will be minor, temporary noise impacts to nearby residences during the construction phase of this project. Design year noise levels will not exceed the Noise Abatement Criteria (23 CFR Part 722). Traffic noise level increases will be insignificant with the construction of this project.

Utilities - The following utilities will be affected during construction of the proposed project:

- Montana Dakota Utilities above and below ground power lines, utility poles and clearances.
- Mid-Rivers Telephone and/or U.S. West buried telephone and fiber optic cables.
- Water lines for the City of Plevna.
- Manholes for the sewer lines in Plevna and Baker.

Impacts (service disruptions) due to these proposed utility relocations will be minor. The various utility line owners will be responsible for contacting their customers in advance of such service disruptions.

Stream Preserv./Water Quality - Within the project limits, US Highway #12 parallels and crosses Sandstone Creek, Timber Creek, Red Butte Creek, the Baker Lake Overflow, and several unnamed tributaries for Sandstone and Timber Creeks. There may be some sedimentation which could occur as a result of construction activities. However, the implementation of standard procedures found in the MDT Highway Construction Standard Erosion Control Work Plan will alleviate any impacts associated with sedimentation. Furthermore, the drainages on this project consist of coulees which are normally dry. At least part of this proposed project's construction will be done during periods when there is no flow of drainage in the coulees.

An Erosion Control Plan will be submitted to the MDEQ's Water Quality Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project.) Best Management Practices will be included in the design of this Plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Work Plan. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

There will be two channel changes along this proposed project within the following locations: Sandstone Creek along the proposed alignment's northerly R-o-W between km's 113.9± and 114± (MPs 70.8± and 70.85±), and an unnamed tributary to same paralleling the southerly proposed R-o-W from km 126.45± to km 126.6± (MPs 78.6± to 78.7±).

Section 3: Permits Required and Regulatory Compliance

Permits Required - The following permits will be acquired prior to any relevant disturbance:

This proposed project will be in compliance with the provisions for both Water Quality under **75-5-401(2) M.C.A.** for *Section 3(a)* authorizations, and Stream Protection under **87-5-501** through **509 M.C.A.**, inclusive.

A *124SPA Stream Protection* Permit will be required by the MDFW&P. The permit application was submitted to MDFW&P on February 5, 1996. Additional information for this 124 SPA Permit was sent to the MDFW&P on February 15, 1996. A 124 permit (Permit Number MDT-9-96) was received on March 1, 1996.

This proposed project will require the following permits under the *Clean Water Act* **(33 U.S.C. 1251 - 1376)**:

A *Section 402*/Montana Pollutant Discharge Elimination System permit from the MDEQ's Water Quality Division.

A *Section 404* permit from the U.S. Army - Corps of Engineers. The COE will determine if this proposed project qualifies for a "Nationwide" 404 permit under the provisions of **33 CFR 330**.

> All work will also be in accordance with the *Water Quality Act* of 1987 **(P.L. 100-4)**, as amended.

In accordance with **7-22-2152,** and **60-2-208 M.C.A.**, MDT will re-establish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications will include instructions on seeding methods, seeding dates, types and amounts of mulch and fertilizer, along with seed mix components. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for this proposed project will be forwarded to the Fallon County Weed Board for approval.

Section 4: Coordination and Public Information

Public Information - A public information meeting about this proposed project was held in Baker's City-County Courthouse on May 8, 1991 with fifty-one (51) people in attendance. Four articles have been printed in the local newspaper since late May, 1995 concerning this proposed project's development. The most recent article was printed October 6, 1995.

Americans With Disabilities Act - Two wheelchair ramps/curb cuts are being installed in the town of Plevna at the northeast corner of U.S. Highway #12 (P-2) and Main Street and the southeast corner of U.S. Highway #12 (P-2) and FAS 494 for compliance with the Americans With Disabilities Act (P.L. 101-3360.

Cooperating Agencies - The US Department of the Interior Bureau of Land Management (BLM), Big Dry Creek Resource Area was requested to be a Cooperating Agency on this proposed project under the provisions of 23 CFR 771.111(d). The BLM's parcel of Bankhead Jones Act (P.L. 96-294) land in Section 15 of Township 7 North, Range 59 East will require an additional easement for this proposed project. This occurs between kms 129.9± and 131.6± (MP 80.7± to 81.8±) on P-2, and this parcel is managed by the Fallon County Soil Conservation District. The BLM responded that this property was conveyed to the county in 1983. A copy of the BLM's letter is attached in Appendix B - Agency Correspondence. A rough draft copy of this Re-Evaluated Categorical Exclusion request (RCE) was therefore sent to the Fallon County Commissioners for review as a cooperating agency. Copies of the letter from the BLM and to the Fallon County Commissioners are contained in Appendix B - Agency Correspondence.

This proposed project will cross state land in the West half of Section 9 in Township-7-North, Range-59-East; between km's 128.3± and 129.15± (MPs 79.75± and 80.25±) on U.S. Highway #12 (P-2). Therefore, MDT has been coordinating with the former Montana Department of State Lands (DSL) (DSL, part of the Montana Department of Natural Resources & Conservation / DNR&C since July 1, 1995) on this project. See (former) DSL Eastern Land Office letter dated March 25, 1993 in Appendix B- Agency Correspondence.

Both the BLM, Big Dry Creek Resource Area and the DNR&C are being sent a Rough Draft copy of the RCE for review as Cooperating Agencies. The DNR&C had no comments, and the county did not respond with any comments on the Rough Draft RCE.

Section 5: Cumulative Impacts

MDT currently has one active and one proposed project in this part of its Glendive District (No. 4) not including this proposed project. The nearest project is RTS 493-1(1)0, One Mile North of Baker-West, Control No. 3019. It is an overlay project located approximately 1.6 kilometers (1.1 miles) north of this proposed project. No cumulative impacts will result due to the distance from this proposed project. Therefore, none of these MDT projects will have any significant cumulative environmental impacts on this proposed action. This proposed new construction and reconstruction project will also have no significant cumulative environmental impacts on these or any other MDT projects in this part of its Glendive District (No. 4). The DNR&C did not identify any proposed and/or ongoing actions in this proposed project's vicinity.

Construction of this proposed project will not have any significant air or water quality impacts. This proposed project is also in accordance with the provisions of 23 CFR 771.117(a). Therefore, the FHWA's concurrence is requested that this proposed project still qualifies as a Categorical Exclusion under the provisions of 23 CFR 771.117(d).

Karl M Helvik

for Joel M. Marshik, P.E., Manager
Environmental Services

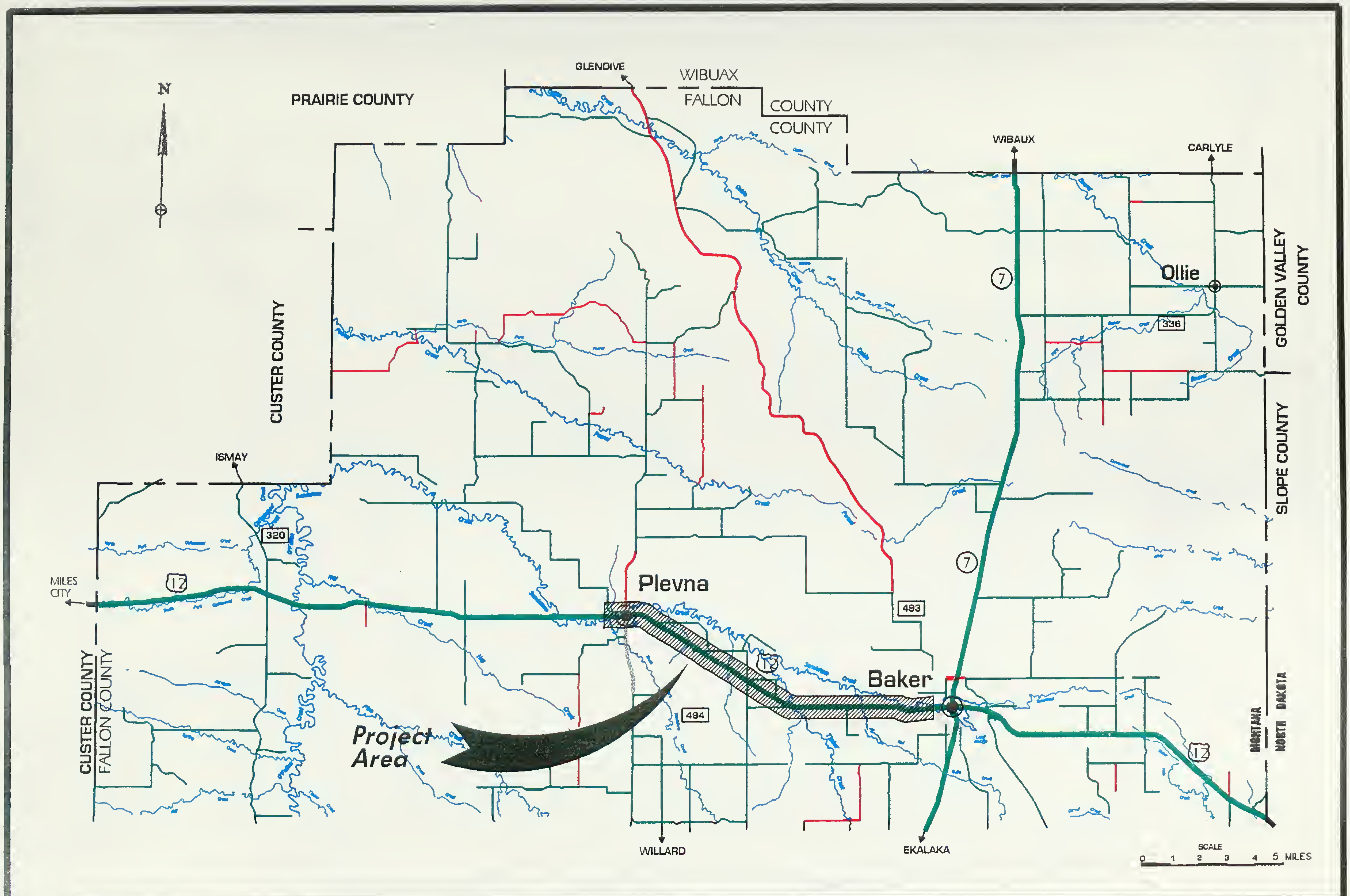
Concur ____________________ Date 4-17-96
Federal Highway Administration

"ALTERNATIVE ACCESSIBLE FORMATS OF THIS DOCUMENT WILL BE PROVIDED ON REQUEST."

JMM:KMH:jl

Attachments

cc: Michael Johnson, Administrator - MDT Glendive District (4)
Carl S. Peil, P.E. - MDT Preconstruction Engineer
Thomas E. Martin, P.E., Chief, MDT Right-of-Way Bureau
David W. Jensen, Supervisor - MDT Fiscal Programming Section
Mark A. Wissinger, P.E., Supervisor - Contract Plans Section
Joel M. Marshik, P.E., Manager - Environmental Services
Jeanette Lostracco, AICP, Carter & Burgess, Inc.

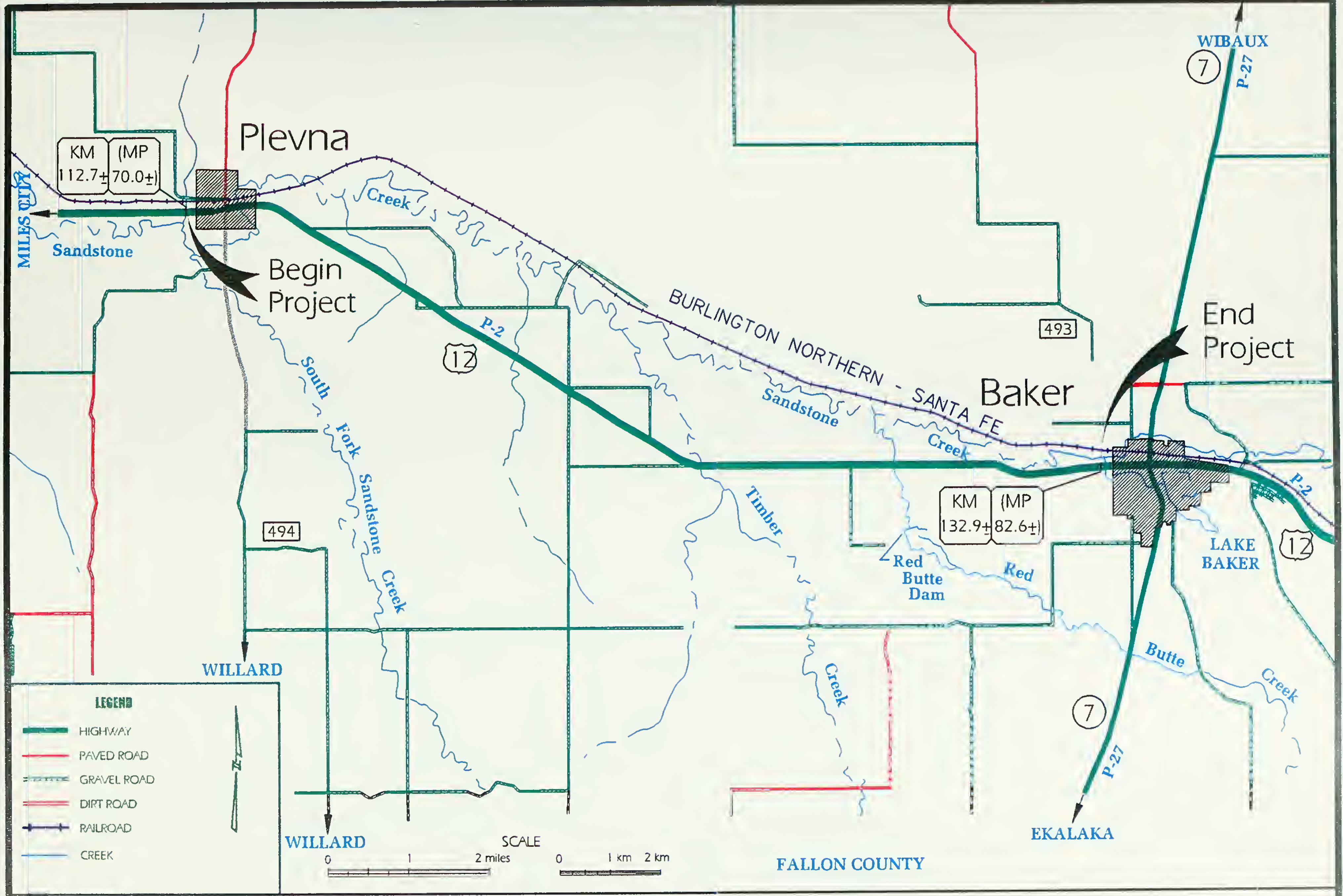


F2-2(4)70

Plevna to Baker

(P.M.S. C#1276)

REGIONAL MAP
Figure 1



F2-2(4)70

Plevna to Baker

(P.M.S. C#1276)

PROJECT LENGTH: 20.3± KM (12.6± MILES)

AREA MAP

Figure 2

Appendix A - 1987 Categorical Exclusion

DEPARTMENT OF HIGHWAYS

TED SCHWINDEN, GOVERNOR
2701 PROSPECT
STATE OF MONTANA
HELENA, MONTANA 59620

February 24, 1987

William S. Dunbar
Project Development Engineer
Federal Highway Administration
301 South Park, Drawer 10056
Helena, MT 59626

F 2-2(4)70
PLEVNA - BAKER

This is to request your concurrence that the above referenced project meets the criteria for classification as a Categorical Exclusion and that this preliminary environmental review is appropriate on this project. We also request approval of the exception in standards as outlined below.

The proposed project is located in Fallon County on U.S. Highway #12, beginning just west of Plevna and extending easterly 12.6± miles to the west city limits of Baker. The scope of work consists of major widening and placing a plant mix overlay on the existing roadway. There will be several areas of complete reconstruction to improve the stopping sight distance to meet the minimum for a 60 mph design speed. This type of action does not involve significant environmental impacts or substantial planning, time or resources.

Physical Characteristics

The existing highway, for the most part, was built in 1939 with a road mix surface and a 24 foot top width. The surfacing consisted of 6.5 inches of base material and 2.5 inches of asphalt material. The fill slopes are 4:1 for heights up to 3 feet and 1½:1 above this with one foot widening.

A 0.8 mile section through Plevna was built in 1932 and improved in 1936 with a bituminous surface treatment with a 24 to 34 foot top width.

The horizontal alignment is slightly greater than desirable for rolling terrain and 60 mph design speed, there being one curve of 5°. The vertical alignment includes grades up to 5.25% with 23 sag curves and 20 crests that do not meet the desirable minimum for 60 mph design. Of these 4 sags and 5 crests do not meet 50 mph design.

There are eight bridges on this project of the timber stringer type with a roadway width of 28 feet and one steel stringer type with a 22 foot roadway.

The existing right-of-way widths vary from 40 to 80 feet on each side.

Major Design Features

The design features will consist of major widening and a new plant mix overlay of 0.40± for a 28' top. Ditches will be widened and cut slopes flattened in areas of snow drifting problems. It is proposed to regrade those crest vertical curves that do not meet the minimum for a 50 mph design speed. This will include three of the four sag vertical curves also.

All drainage facilities will be checked for using inplace and lengthening or replacing. The bridge structures will be reviewed for replacement.

Road approach slope flattening to 6:1 will be included for fill heights of 5 feet or less. Those approaches that appear to be not in use will be reviewed for possible elimination.

Exceptions In Standards

The exceptions in standards include the 28-foot top width; and one sag vertical curve that does not meet the desirable minimum for a 50 mph design speed.

With the relatively low volumes of traffic and low accident rate, it is not cost effective to upgrade these sections of primary highway when considering the overall primary system and the funding available.

Pavement Condition

The existing pavement is cracked, deteriorated and requires extensive maintenance. The Present Serviceability Index (PSI) ranges from 1.9 to 2.4 (0 is impassable, 5 is perfect).

Traffic Volumes

The traffic information for this project is as follows:

1987 ADT = 760 (Present Year)
2011 ADT = 1000 (Projected Year)
DHV = 140
D = 55-45%
T = 12.3%
All Trucks = 48.0%
18 Kip EALS = 70.34 (Daily)

System and Functional Classification

This project is located on the primary system for the State of Montana. This particular route is a major east-west route for southeastern Montana. It is classified as a principal arterial by the State of Montana 1985 Rural Functional Classification of Highways.

Traffic Controls and Regulations

This project will be signed and striped in accordance with the Manual on Uniform Traffic Control Devices. It will be constructed under traffic with the use of the appropriate control devices.

Safety Enhancement

This project will be striped according to the MUTCD which will delineate the shoulders, centerline and no passing zones. The new surface material will improve the skid resistance of this section of highway.

Other safety enhancement features include slope flattening on the mainline as well as road approaches, wider surfacing top, vertical curve corrections, and guardrail updating.

Treatment of High Hazard Locations and Features

There were no accident clusters at this location identified through our annual accident cluster program.

Accident Experience

A review of the accident statistics for this section of highway revealed a total of 37 reported accidents for the period January 1979 through September 30, 1986. There were 12 injury accidents and 2 fatalities. The accident rate was 1.20 and the severity rate was 1.583, as compared to the statewide averages of 2.13 and 1.51 respectively. In twenty-one of those accidents the driver was either inattentive, fell asleep, or not under control.

None of the accident details that we have reviewed seem to vary significantly from the average occurrence.

Economics

This major widening and overlay, with some reconstruction, project should provide good service for the traveling public for some time.

Potential Impacts

The proposed work will require some new right-of-way. Some inconvenience will be experienced by the traffic traveling through the project during construction.

laws pertaining to this matter. This project does not affect any national, historic, natural, environmental or educational landmarker in the area.

There will be no prime or unique farmlands affected by this project and the coordination with the Soil Conservation Service is not necessary. In addition, coordination with the U.S. Fish and Wildlife Service concerning threatened or endangered species is also not necessary.

Stephen C. Kologi
STEPHEN C. KOLOGI, P.E.
CHIEF - PRECONSTRUCTION BUREAU

APPROVED W S Dunbar
Federal Highway Administration

Date 4/21/87

SCK:DDA:mb:2/1

Attachments

cc: D. M. Harriott
J. B. Randall
R. G. Anderson
D. S. Johnson
J. R. Ricker
D. P. Bartsch
K. F. Skoog
N. H. Rognlie
T. E. Martin
L. J. Ivanovitch
R. E. Champion
C. S. Peil
R. T. Rask
E. G. Murphy
G. A. Jackson
J. J. Walsh

The terrain through which this project passes is considered to be rolling with adjacent land use being mostly dryland farming and some livestock grazing. It will not change this land use or the existing traffic patterns. This improvement type of project is being utilized to prolong and preserve the service life of the existing highway.

The surfacing inslopes will be approximately 6:1. The fill slopes will generally be 6:1 except for heights over ten feet which have slopes varying up to 2:1 wherever feasible. Based on an engineering judgement, which will include consideration of site conditions, accident statistics, warrant values, maintenance problems, etc., some fill slopes will be flattened or guardrailed.

All drainage crossings on this project are above the headwaters for their respective streams and there are no adjacent wetlands, so individual Section 404 Permits will not be required.

From the safety standpoint this section of roadway will be improved by virtue of the improvement of the driving surface, slope flattening and vertical curve corrections. It is in the public interest to use the exception to standards to improve the existing facility as proposed within the present funding limitations.

This project is not a major action and it is our opinion that the effect on the environment will be insignificant. The major impact of the project will be to provide a better transportation facility for the traveling public.

The project should have little long-term effect on the air quality in the area. Construction of the project will cause some temporary air pollution due to dust and fumes. The contractor will be required to adhere to all federal, state and local regulations to minimize this pollution. Construction noise may cause some temporary, but no permanent adverse impacts. Water pollution will be kept to a minimum by adherence to all applicable state and national

Appendix B - Agency Correspondence

Montana Department
of
Fish, Wildlife & Parks

1420 East Sixth Avenue
Helena, Montana 59620

MASTER FILE
COPY

cc: Don Lovely
D.S. Johnson

June 1, 1993

Ms. Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau
Dept. of Transportation
2701 Prospect
Helena, MT 59620

Dear Ms. Vinson:

RE: F 2-2 (4) 70
Plevna - Baker
Control #1276

We have reviewed your above-mentioned proposed project for complete reconstruction of a portion of existing U.S. Highway 12 in Fallon County.

The South Sandstone FAS signing is within your project boundaries. These lands have 4(f) usage as defined by Section 4(f) of the 1966 Department of Transportation Act. If you anticipate any impacts to our site as a result of your highway reconstruction, please contact us so we can work with you to mitigate any problems.

The South Sandstone FAS area does fall under 6(f) of the Land and Water Conservation Fund Act.

Please keep Don Hyyppa, the regional supervisor of region 7, informed as this project develops.

If you need more information regarding the South Sandstone FAS area, please let us know. Thank you for the opportunity to comment. We appreciate your cooperation.

Sincerely,

Mary Ellen McDonald

MARY ELLEN MC DONALD
Administrative Officer
Operations Bureau
Parks Division

RECEIVED
JUN 4 1993
ENVIRONMENTAL BUREAU

cc: Don Hyyppa, R-7 Supervisor

ks

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

Stan

③ 40

10 1-93 C.R.
FILE
COPY

FA

OCT 20 1993

September 29, 1993

Marcella Sherfy
State Historic Preservation Office
102 Broadway
P.O. Box 201202
Helena, MT 59620-1202

Subject: F 2-2(4)70
Plevna - Baker
Control No.: 1276

Enclosed is the testing report and CRABS for 24FA339 in Fallon County. After extensive testing, Ethnoscience has recommended the site ineligible to the NRHP. We agree with their recommendation and request your concurrence.

If you have any questions, please contact Jon Axline at 444-6258.

Edrie Vinson

Edrie L. Vinson, Chief HS
Environmental & Hazardous Waste Bureau

ELV:D:ENV:47.gg

Enclosures

cc: Donald J. Lovely, P.E., Glendive District Engineer
David S. Johnson, P.E., Preconstruction Bureau

CONCUR
NO PROPERTIES ON OR ELIGIBLE
FOR NRHP APPEAR LIKELY TO
EXIST WITHIN PROJECT IMPACT AREA
MONTANA SHPO
DATE 10-18-93 SIGNED Stan Wilmoth

An Equal Opportunity Employer

DEPARTMENT OF STATE LANDS
EASTERN LAND OFFICE

MARC RACICOT GOVERNOR

P.O. BOX 1794
321 MAIN STREET

STATE OF MONTANA

(406) 232-2034

MILES CITY, MONTANA 59301

[illegible]
MAR 29 1993
ENVIRONMENTAL BUREAU

MASTER FILE
COPY

March 25, 1993

cc: G. L. Larson
Ray Ventura
BIOLOGISTS
DON LOVELY

Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Department of Transportation
P. O. Box 201001
Helena, MT 59620-1001

Re: F 2-2 (4) 70
Plevna - Baker

Dear Mr. Vinson:

Thank you for contacting us for our input concerning the above-referenced highway project. State land which will be impacted by this project includes the W2, Section 16, T7N, R59E.

The primary environmental consideration which might affect this project is the possible reclamation of the old Red Butte Dam project located in the south end of this section. This was at one time a large dam; I'm not certain of the exact size, but I'm sure it would have been high hazard.

Because of problems that existed, the dam was breached back in the 70's, and the area became a mess of weeds.

We've been exploring options for reclaiming this site, including the possibility of rebuilding the dam on a smaller scale. I've been in contact with Ducks Unlimited and Fish, Wildlife & Parks.

The potential for developing this site depends on the future availability of funding and interest. It had even been brought to my attention that Department of Transportation has a wetlands enhancement program which might be a possibility to consider as a funding source.

I'll be pursuing this more in the near future, although a potential project may be several years off.

We'd like to have this taken into consideration when you are developing the drainage crossing. I've enclosed a map that shows the location.

The other concern would be of any impact to cropland. I'm unable to tell by looking at the map if any acreage would be affected. If it was, then you would need to work with our lessee, Simon Sieler, to mitigate any damages.

Please let me know if you have any questions. I can be contacted at 232-2034 or P. O. Box 1794, Miles City, Montana 59301.

Sincerely,

Sharon Moore

Sharon Moore
Land Use Specialist

SM:kw
Enc.
cc: Kevin Chappell, Surface Management Bureau Chief

Montana Department of Fish, Wildlife & Parks

Bio-Res. FILE COPY

MAR 31 1993
ENVIRONMENTAL BUREAU

Route 1, Box 2004
Miles City, Mt 59301
March 30, 1993

cc: Don Lovely
Jim Hill

Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Montana Department of Transportation
P.O. Box 201001
Helena, Montana 59620-1001

Dear Ms. Vinson:

The following comments are in response to your letter concerning F 2-2 (4)70 Plevna - Baker. Deer, antelope, and other wildlife species are common in the project area, but it seems unlikely that the project will affect them. We will have some concern for Sandstone Creek, the new bridge on the creek and any realignment of the creek that might be necessary. Northern pike and possibly channel catfish are present in Sandstone Creek at least seasonally in the project area. Our concern would be for fish passage.

Sincerely,

Don Hyyppa
Don Hyyppa
Regional Supervisor

cc: Al Wipperman
Neil Martin
Phil Stewart

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Marc Racicot, Governor

February 2, 1996

U.S. Department of the Interior
Bureau of Land Management (BLM)
111 Garryowen Road
Miles City, MT 59301

Attention: Glenn Carpenter, Manager
Big Dry Resource Area

Subject: F 2 - 2(4)70
Plevna - Baker
(P.M.S. C#1276)

This is to request the BLM to be a Cooperating Agency on this proposed project in accordance with the U.S. DEPARTMENT OF TRANSPORTATION'S Federal Highway Administration (FHWA) regulations under the *National Environmental Policy Act (NEPA)*, see 23 CFR 771.111(d)). This proposed project is located on an easement from the BLM to the FHWA. This easement is located in land the BLM acquired under the *Bankhead - Jones Act* as amended (P.L. 96-294). This is located in the North ½ of the North ½ of Section 15 in Township - 7 - North, Range - 59 - East, M.P.M., and is currently administered by Fallon County. This is between kilometers (km's) 130.2± and 131.9± (MilePosts/MP's 80.9± - 81.9±) on this proposed project.

This proposed project is for a full reconstruction of U.S. Highway Nº12 (Primary route #2). Both an additional easement and construction permits will be required within the BLM's property. Copies of the Scope-of-Work Report, and a Project Location Map for this proposed project are enclosed.

This proposed project may also be under the provisions of (*Section 4(f)*" of the 1966 *U.S. Department of Transportation Act* (49 U.S.C. 303). These provisions only apply if the BLM's lands are used and/or designated as any of the following:

a. Parks and/or Recreation Areas;

b. Wildlife/Waterfowl Refuges;

c. Sites eligible for inclusion, or in the NATIONAL REGISTER OF HISTORIC PLACES under *Section 106* of the *National Historic Preservation Act* (16 U.S.C. 470). (NOTE: MDT conducted Cultural Resources Surveys to identify these, and no sites were located in the vicinity of this proposed project.);

and/or

d. Lands managed for multiple-use with specifically-designated recreational, or wildlife/ waterfowl management sites, and under statute(s) providing the same. This only applies to the same specific site/s.

Please also indicate if this proposed project would have "constructive use" of any BLM site that would be covered by the provisions of *Section 4(f)*. "Constructive use" occurs when an action substantially impairs a site's activities, features, and/or attributes upon completion of the proposed project. The BLM's reasons for such a determination are also requested.

A written response to this Cooperating Agency request is needed for the environmental documentation on this proposed project. This proposed project is currently scheduled to be "Ready" for letting to contract by July, 1997. MDT will provide the BLM a copy of the ROUGH DRAFT environmental document on this proposed project for review as a Cooperating Agency.

Please contact this office at the Post Office's optical character read sorting address (using upper-case letters) on the "letterhead" (page 1 of this letter), or phone 406-444-7227 if there are any questions.

Joel M. Marshik, P.E.
Environmental Services Manager

JMM:KMH:jl:[*DIVE]1276-BLM-REQ

Enclosures

cc: Michael P. Johnson, Administrator - MDT Glendive District (Nº 4)
Carl S. Peil, P.E. - MDT Preconstruction Engineer
Thomas E. Martin, P.E. - MDT Right-of-Way Engineer
Timothy W. Reardon, Chief Counsel - MDT Legal Services
Dale W. Paulson, Environmental Coordinator - FHWA Montana Division
Sharon Moore, Land Use Specialist - DNRC Eastern Land Office
Project file

598-scs.frm

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)	Date of Land Evaluation Request 2/7/96
Name of Project Plevna-Baker, US Highway #12	Federal Agency Involved USDoT - Federal Highway Administration
Proposed Land Use Highway Right-of-Way/Easements	Fallon County, Montana
PART II (To be completed by SCS)	Date Request Received by SCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ (If no, the FPPA does not apply - do not complete additional parts of this farm.)	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land in Govt. Jurisdiction Acres: %	Amount of Farmland as Defined in FPPA Acres: %
Name of Land Evaluation System Used	Name of Local Site Assessment System	Date Land Evaluation Returned by SCS

		Alternate Site Rating			
PART III (To be completed by Federal Agency)		Site A	Site B	Site C	Site D
A. Total Acres to be converted directly		294.52			
B. Total Acres to be converted indirectly		0			
C. Total Acres in Site		294.52			
PART IV (To be completed by SCS) Land Evaluation Information					
A. Total Acres Prime and Unique Farmland					
B. Total Acres Statewide and Local Important Farmland					
C. Percentage of Farmland in County or Local Govt., unit to be converted					
D. Percentage of farmland in Govt. Jurisdiction with same or higher relative value.					
PART V (To be completed by SCS) Land Evaluation Criterion Relative Value of Farmland to be converted (Scale of 0 to 100 Points)					
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.8(b))	Max. Pts.				
1. Area Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent of Site Being Farmed	20	15			
4. Protection Provided by State and Local Govt.	20	0			
5. Distance from Urban Builtup Area	N/A	--			
6. Distance to Urban Support Services	N/A	--			
7. Size of present farm unit compared to average	10	0			
8. Creation of nonfarmable farmland	25	0			
9. Availability of farm support services	5	0			
10. On-farm investments	20	5			
11. Effects of conversion on farm support services	25	0			
12. Compatibility with existing agricultural use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	45			
PART VII (To be completed by Federal Agency)					
Relative value of farmland (From Part V)	100	100			
Total Site Assessment (From Part VI above or a local site assessment)	160	45			
TOTAL POINTS (Total of above 2 lines)	260	145			

Site Selected: A	Date of Selection 2/7/96	Was a Local Site Assessment Used? Yes X No ☐

Reason for Selection: Site A: Since the total socre is less than 160, no further sites need to be considered as stated in CFR 658.4(c), Part (2) - "Sites receiving a total score of less than 160 (will) be given a minimum level of considerations for protection and no additional sites (need to) be evaluated."

(See instructions on reverse side)

Form AD-1006(10-83)

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 - Originator will send copies A, B and C, together with maps indicating locations of site(s), to the Soil Conservation Service (SCS) local field office and retain copy D for their files. (Note: SCS has a field office in most counties in the US. The field office is usually located in the county seat. A list of field office locations are available from the SCS State Conservationist in each state).

Step 3 - SCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 - In cases where farmland covered by the FPPA will be converted by the proposed project, SCS field offices will complete Parts II, IV and V of the form.

Step 5 - SCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained fo SCS records).

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 - The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTION FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres to be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.

2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type projects such as transportation, powerline and flooded control, criteria #5 and #6 will not apply and will be weighted zero, however, criterion #8 will be weighted a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 13 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points", where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site A maximum is 200 points; and alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site "A."}$$

SS:Q:ENV:43.gg

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Miles City District Office
111 Garryowen Road
Miles City, Montana 59301

MASTER
FILE
COPY

IN REPLY TO:
2800

RECEIVED
MAR 12 1996
ENVIRONMENTAL

MAR 08 1996

Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620-1001

Subject: F2-2(4)70
Plevna-Baker
(P.M.S. C#1276)

Dear Mr. Marshik:

Thank you for your letter of February 2, 1996, requesting comment on the above-described project. The BLM no longer has jurisdiction over any lands within the project dimensions.

The following described parcel was formerly BLM land, but was conveyed to Fallon County in 1983: T7N, R59E, PMM, Sec. 15

Although title passes subject to valid and existing rights, the BLM conveyed the entire 640-acre parcel. Therefore, the county should be considered the affected landowner of this parcel.

We appreciate the opportunity to comment; however, in order to facilitate your process, we do not request any further consultation regarding this project.

If you have any further questions regarding this issue, please contact Brian Lynnes at 406-232-4331.

Sincerely,

Area Manager
Big Dry Resource Area

J.M.: maysnik

MONTANA DEPARTMENT
OF TRANSPORTATION
Environmental Services

2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

Marc Racicot, Governor

MASTER
FILE
COPY

March 15, 1996

Fallon County Commissioners
P. O. Box 846
Baker, MT 59313-0846

Subject: F 2 - 2(4)70
Plevna - Baker
(P.M.S. C#1276)

This proposed reconstruction project has been determined to be in a parcel of land currently owned by Fallon County. This is located in the North ½ of the North ½ of Section 15 in Township - 7 - North, Range - 59 - East, M.P.M. (the pink-shaded area on sheet Nº's 32 - 34 in the enclosed ROUGH DRAFT's "**Attachment 1.2**"). It's between kilometers (km's) 130.2± and 131.9± (MilePosts/MP's 80.9± - 81.9±) on U.S. highway Nº 12. This parcel was shown as land the U.S. DEPARTMENT OF THE INTERIOR's Bureau of Land Management (**BLM**) acquired under the *Bankhead - Jones Act*, as amended (**P.L. 96-294**). However, the **BLM**'s Big Dry Resources Area Manager stated that this parcel "was conveyed to Fallon County in 1983." (copy of the **BLM** Big Dry Resources Area Manager's letter of March 8, 1996 is attached).

Therefore, the MONTANA DEPARTMENT OF TRANSPORTATION (MDT) regards Fallon County as a Cooperating Agency on this proposed project under the provisions of 23 CFR 771.111(d). A ROUGH DRAFT copy of the environmental document for this proposed project is also attached. Please review this document, and return it to this office at the earliest convenience if there are any comments. The other Cooperating Agency (the MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION/ **DNR&C**, see copy of letter attached) has also been sent a copy of this ROUGH DRAFT document for review.

This proposed project is tentatively scheduled to be "READY" for July, 1997. However, MDT's Glendive District (Nº 4) is attempting to advance completion of this proposed project's design and Right-of-Way/easement acquisitions. Therefore, it is respectfully requested that any comments on the enclosed ROUGH DRAFT be sent to this office by **March 22, 1996.**

The FINAL version must be approved by the U.S. DEPARTMENT OF TRANSPORTATION's Federal Highway Administration (FHWA) prior to this proposed project's approval for letting to contract.

Please call this office at 406-444-7224 if there are questions about this document (the office's "FAX" number is 406-444-7245). Access is also now available through the InterNet at "`U3647@jaws.mdt.mt.gov`" for "e-mail" about the enclosed.

Joel M Marshik

fr Joel M. Marshik, P.E. KmH
Environmental Services Manager

JMM:KMH:asj:[*.DIVE]1276-13C.LET

Enclosures

cc: Michael P. Johnson, Administrator - MDT Glendive District (N^o^ 4)
Carl S. Peil, P.E. - MDT Preconstruction Engineer
Timothy W. Reardon, Chief Counsel - MDT Legal Services
Joel M. Marshik, P.E. - MDT Environmental Services Manager
Dale W. Paulson, Environmental Coordinator - FHWA Montana Division

"FAX": Jeanette Lostracco, Project Manager - *C+B* @ Denver

Attachment 1 - Biological Memorandum

BIOLOGICAL MEMORANDUM

Plevna-Baker
Biological Memorandum

Introduction

On January 24-25, 1996, a field survey and wetlands delineation was conducted for MDT's Plevna to Baker project. Defined as that portion of U.S. Highway 12 between said towns of Fallon County, the 20.2 kilometer (12.6 mi.) route was assessed for wildlife, fisheries, wetlands, and associated biological resources.

Given the infrequency of Threatened and Endangered Species, Sensitive Species of Concern, and the low-value of potentially affected wetlands, there appear to be no substantial construction-related impacts to remaining resources. Consequently, this Biological Memorandum with Wetland Finding has been prepared in lieu of a full Resources Report. Reasonable biological concern exists however for loss of riparian habitat within the affected floodplain of Timber Creek km 124.61 (MP 77.4 R).

Area and Project Description

Encompassed by southeastern Montana's semi-arid, rolling terrain, the project bisects the three floodplains of Sandstone km 113.99 (MP 70.8), Timber km 124.61 (MP 77.4), and Red Butte Creeks km 128.48 (MP 79.8), respectively. The only perennial stream within the project's length is Sand-stone Creek, the remaining two exhibiting intermittency most months of the year.

The general area is sparsely populated and used for dryland farming and livestock grazing. The gentle topography slopes toward the distant Yellowstone River where numerous stock ponds serve as catchments. Grazing impacts are evident along the route. Other than the valuable and limited riparian/wetland cover (i.e. habitats) of mentioned drainages, project vegetation is commonly comprised of dry-site grasses and forbs, sagebrush, and various weed species. Highway fillslopes predictably contain the smooth bromes and wheatgrasses given to slope stabilization (detailed listings of species appear within the Finding and appended field forms).

Project scope includes major two-lane widening and bituminous overlay to 8.5 meters (28 ft.), with partial reconstructions of several vertical curves to improve stopping sight distances. As designed, a slight alignment shift of less than 15 m. (50 ft.) would occur left of the existing facility for the first 11 k. (7 mi.) of the project, followed by a similar shift right for the remaining distance. Flattening of fill slopes, guardrail and hydraulic improvements, and new signs and striping are also proposed.

Threatened and Endangered Species

Analysis. Correspondence with U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and Montana Department of Fish, Wildlife and Parks (MDFWP) personnel indicates no resident populations of threatened or endangered species within the general area. Black-footed ferrets once endemic to much of eastern Montana were last recorded many years ago in the Ekalaka area (Christopherson, pers. comm.). T & E species use of the general vicinity is presently confined to seasonal migrations of the threatened bald eagle and endangered peregrine falcon. Nearest residences are likely those of bald eagles along the Yellowstone River and one historic peregrine territory of record some seven townships removed (Flath, pers. comm.).

Mitigation/Coordination Measures. Due to a general area absence of T & E species and lack of foreseeable impacts, no mitigation and coordination measures are recommended beyond MDT's current practice of raptor-proofing all applicable utilities relocations. Thus:

- Any necessary powerline relocations shall be constructed and raptor-proofed in accordance with Raptor Research Report No. 4 (Raptor Research Foundation, 1981).

This measure would also protect many other important species of hawks, owls, and falcons common to the vicinity.

Determination of Effects. Based on all available information, implementation of the proposed action will have **no effect** upon any of the three federally-listed species possible to occur within Fallon County.

Additional Biological Resources

A query of the Montana Rivers Information System reveals the presence of fish only within Sandstone Creek, where as many as sixteen game and non-game species exist. Game fish include the northern pike and channel catfish, although their abundance is listed as "uncommon". More common are carp, white sucker, river carpsucker, green sunfish, emerald and sand shiners, and various minnows such as the fathead, western silvery and plains. The new bridge design, as explained by MDT hydraulics engineer, Gerry Michel, is a three-span structure that places no piers within the active channel- its involvement confined to an estimated 20 m. (7.33 feet) of coarse, bank riprap providing pier stabilization. No substantial fisheries impacts are anticipated from placement of riprap.

A review of the Montana Natural Heritage occurrence listings revealed that sensitive species of concern are not an apparent issue for this project either. Swamp milkweed, the only recorded listing with state ranking (S1), occurs 1.6 k. (1 mi.) beyond the project. Its presence within the immediate project area remains undetermined.

A review of the Montana Natural Heritage occurrence listings revealed that sensitive species of concern are not an apparent issue for this project either. Swamp milkweed, the only recorded listing with state ranking (S1), occurs 1.6 k. (1 mi.) beyond the project. Its presence within the immediate project area remains undetermined.

Perhaps the most prominent impact of the project will take place within the riparian habitats of Timber Creek, where the alignment first shifts south. As designed, the removal of deciduous saplings and trees such as green ash, American plum, Russian olive, chokecherry, and thornapple becomes inevitable. This diverse canopy joins with shrubby ground vegetation to afford a variety of functions for many bird and mammalian species (e.g. thermal protection, foraging/breeding/nesting/hiding covers, etc.).

A light snow cover at the time of survey indicated the presence of deer, Hungarian partridge and sharp-tailed grouse, with ring-necked pheasants flushed from areas slated for impact. Several hardy songbirds and a northern shrike were also sighted. It is also very probable that Merriam's turkeys range within the drain-age as were observed along Sandstone Creek. Accordingly, any avoidance, minimization, and/or mitigation of riparian losses by MDT is especially encouraged throughout this area.

Another project consideration should be for the small colony of cliff swallows seasonally residing beneath the Sandstone Creek bridge. Now consisting of some twenty nest structures, cliff swallows have certain protections under the Migratory Bird Treaty Act. Therefore, to eliminate any possible disturbance of active cliff swallow nests, the following restriction shall apply: **REMOVAL OF THE EXISTING BRIDGE MAY NOT OCCUR BETWEEN LATE APRIL AND MID-SEPTEMBER OF ANY GIVEN YEAR.**

A final resource worth mentioning is the presence of various reptiles and amphibians associated with area drainages and stock ponds. Although none could be observed at the time of survey, they do commonly exist and should be considered in regard to water quality throughout construction.

Attachment 1.1 - Wetland Finding

Plevna-Baker
Wetland Finding

Introduction

This Finding provides delineation and narratives for those project wetlands found within a 91.5 meter (300 ft.) corridor overlying MDT's projected alignment. With the proposal still in the development phase, MDT personnel are designing toward compliance with the two major provisions of Executive Order 11990 which require:

That there be no practicable alternative to the proposed construction; and that the proposed project include all practicable measures to minimize harm to wetlands that may result from such use, with mitigation of inevitable loss.

Approximately 0.29 hectares (0.74 ac.) of low function and value (Class IV) wetland occur, with an estimated 0.03 hec. (0.08 ac.) impacted by construction. More important is the mentioned loss of riparian habitat associated with wetland site 4, immediately south of the Timber Creek bridge (MP 77.4 R).

Study Methods

Project area wetlands are delineated in accordance with the Army Corps of Engineers (COE) 1987 Wetland Delineation Manual. In support of this, within the appendices are found the field narratives, plant species lists, wetlands location maps, and COE Routine Wetland Determination data form. Also submitted are MDT/MDFWP Wetland Site Evaluation forms which assess the many functions and values attributable to productive wetlands.

The corridor delineation of 91.5 meters (300 ft.) was offset to provide 60 m. (200 ft.) of coverage in the direction of proposed alignment shift. Calculations of wetland areas were obtained by paced estimates reaffirmed from aerial photography. Color photo-graphs of wetlands and adjacent uplands are also appended to this document. Field work was conducted on the 24th and 25th of January, 1996.

Wetland Parameters

Vegetation

With many similarities occurring among project wetlands, they may be described within the following two vegetative types (See Figure 3 for wetlands locations, See wetlands photos).

Wetlands in association with deciduous riparian cover. Inclusive of sites 2, 4, and portions of 7, 8 and 10, such wetlands commonly exhibit narrow, grassy signatures within the floodplains of area creeks. More important for their contribution of habitats are the associated riparian thickets functioning as virtual oases for many forms of wildlife during climatic extremes. Riparian corridors frequently include such species as box elder, green ash, American plum, chokecherry, thornapple, and Russian olive to heights of 10 meters (30 ft.+).

Ground cover nearer the creekbottoms includes sporadic willows and red-osier dogwoods, western snowberry, wild rose, and dry-site grasses which abut wetland depressions of prairie cordgrass, reed-canary grass, red-top bentgrass, and occasional hydrophytic forbs such as curly dock and smartweed. Emergent communities of hardstem bulrush and spikerush are also represented within riparian wetlands although limited mostly to site 7- Red Butte Creek. Riparian associated wetlands account for roughly 0.14 hectares (0.36 ac.), or 48 percent of the corridor total.

Wetlands lacking riparian association. Sites 1, 3, 5-6, portions of 7, 9 and 11 account for several small, low-quality wetlands within the open landscape of area drainages. Encouraged by intermittent run-off generally flowing from south to north, wetland micro-sites have established near various stockpasses, bridged drains, and culverts of Highway 12. This is especially true for several culverts where resulting hydraulics have sculpted depressions that now support wetland plants such as prairie cordgrass, sedges, and curly dock. Peripheral upland areas are sparsely vegetated in dry-site wheatgrasses, smooth brome, mustards, and big-leafed sagebrush with occasional, small patches of western snowberry.

Wetlands occasionally contain traces of emergents such as sedges, spikerush, or hardstem bulrush along with the more common prairie cordgrass. Wetland signatures vary widely in shape and size and account for approximately 0.15 hectares (0.38 ac.), or 52 percent of project wetlands. Often impacted by grazing, the two vegetative types combine for an estimated wetland total of 0.29 hectares (0.74 ac.) within the delineated corridor.

Although additional wetland plant species are listed within the appended forms, conditions in January impeded the detection of many more probable wetland forbs and grasses.

Hydrology

All project wetlands, with the exception of those associated with Sandstone Creek, subsist upon intermittent run-off generated by annual precipitation averaging 37 cm. (14.5 in.); little evidence exists to support any recharge from the groundwater table. Signs of flooding are apparent within the area's larger creeks which work at times to the detriment of wetland establishment. Stream volumes with enough velocity to deposit debris in rooted shrubs 1.5 m. (5 ft.) above the ground occur within Sandstone and Timber Creeks. Consequently, portions of their channels afford only scoured, gravelly bottoms lacking hydrophytic vegetation. The mentioned micro-developments of wetland near highway culverts, drains, etc. account for the remainder of immediate hydrology.

Soils

Frozen ground conditions at the time of survey prevented the excavation of soil pits. Nonetheless, scouring has at times exposed river cobbles, gravels, and sands with insufficient organic material to suggest gleying, or low-chroma characteristics. Only very small accumulations of sediments were detectable in most wetland depressions and estimated to be less than 15 cm. (6 in.) in depth.

Excerpts from the Fallon County Soil Survey list hydric soils in the vicinity of sites 2, 4, and 7- or Sandstone, Timber, and Red Butte Creeks, respectively. Although unconfirmed, hydric conditions would also likely occur for the small, structure-induced wetlands, if not for lands immediately adjacent.

Functions and Values

An assessment of wetland functions, utilizing MDT Site Evaluation Forms (in Appendix 1.3), indicates that few exist. All sites warrant low-value, or Class IV; a rating slightly elevated by the considerations for wildlife and transitory presence of bald eagles.

Viewed separately, subject wetlands offer little practical value due to their small size and intermittent nature; but where part of a riparian complex, they commonly afford foraging, hiding, and nesting cover for many species in the dense grasses they provide. Apart from this role, the only physical wetland function worth noting is that of nutrient recycling within the creeks, for which they rate a Moderate.

Wetland Mitigation

The projected wetland loss of 0.03 hec. (0.08 ac.) may possibly preclude the need for wetland credit. Should this not be the case, there appears to be excellent mitigation potential within former Red Butte reservoir. This site, approximately 1 kilometer (0.6 mi.) south of Red Butte Creek bridge km 128.48 (MP 79.8), was visited at the time of survey (See Figure 4 for site location, See photos).

Functional until purposefully breached in the early 1970's due to design problems, the dam once contained some 30 hec. (70+ ac.) of surface water and associated wetlands. At present, it is a basin of weedy species and withering wet-site shrubs. It is also one of the very few sites along the project where mature plains cottonwood trees are found. Since being breached, intermittent flows have continued down the creek as evidenced by established sedges within the eroded portion of dam.

The site was first brought to the attention of MDT in a March 1993 letter from the Montana Department of State Lands, their encouragement given for its reclamation. The site is also known to MDFWP and Ducks Unlimited for its potential benefits to wildlife. Construction of a lowered and reinforced spillway has real possibilities for creating what could become a large wetland bank.

Summary

Construction of the Plevna-Baker project as designed would reduce wetlands by as much as 0.03 hec. (0.08 ac.). Conversely- MDT's proposed alignment shift near sites 8 and 10 would actually distance construction impacts from riparian cover and preserve a few marginally better wetlands.

Of greater concern is the anticipated loss of riparian habitat along Timber Creek km 124.61 (MP 77.4+ R). Another consideration should be for the water quality of fisheries and herptile populations during wet-site construction. MDT's compliance with Executive Order 11990 and adherence to best construction practices will become necessary to minimize loss of functional habitats.

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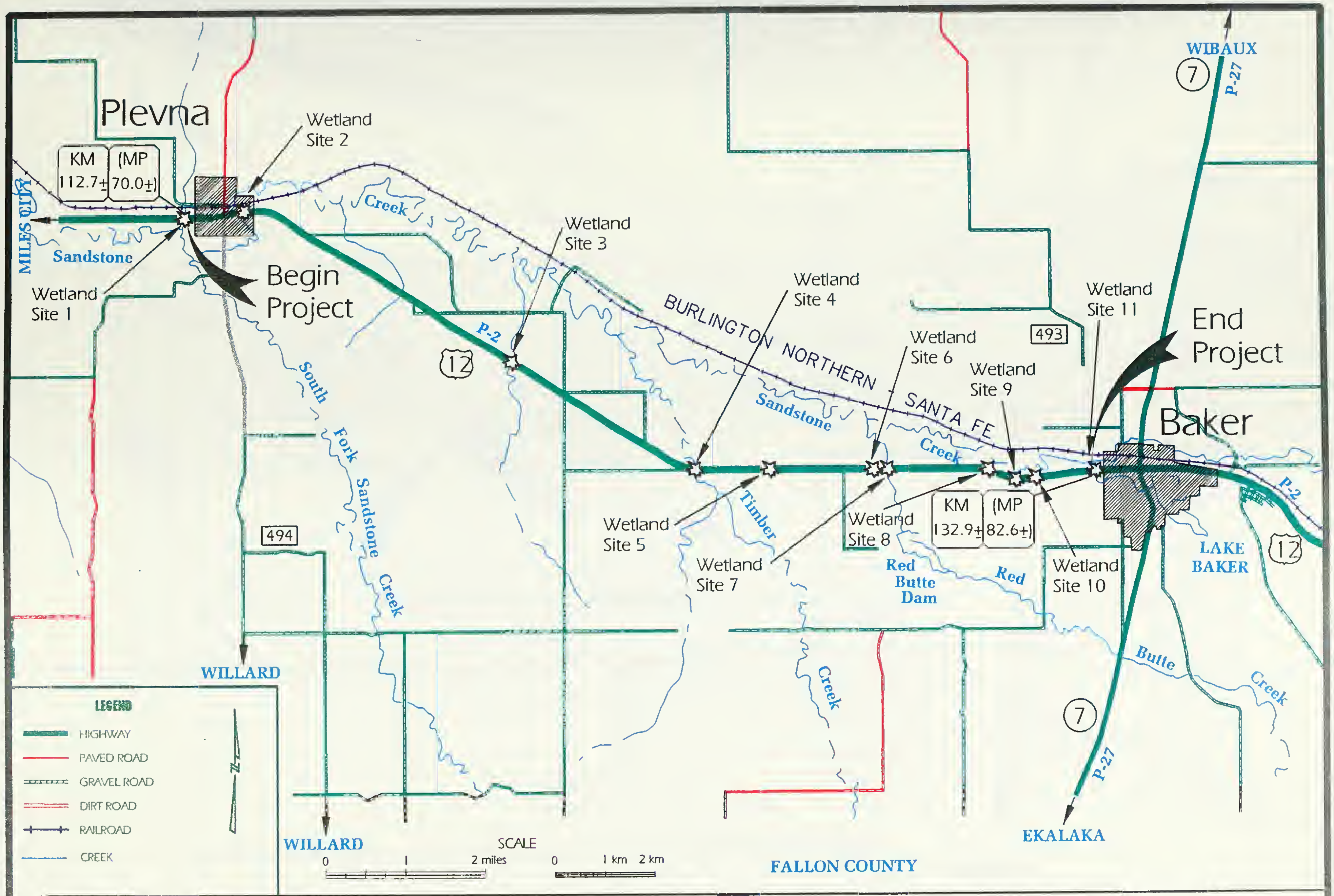
VanFossen, Steven. Resources Soils Scientist. Natural Resource Conservation Service. U.S. Department of Agriculture. Miles City, Montana. Telephone conversation of 29 January, 1996.

Referenced Species

Common Name	Genus and Species
Fauna	
Bald eagle	*Haliaeetus leucocephalus*
Black-footed ferret	*Mustela nigripes*
Cliff swallow	*Petrochelidon pyrrhonota*
Hungarian partridge	*Perdix perdix*
Merriam's turkey	*Meleagris gallopavo merriami*
Northern shrike	*Lanius excubitor*
Peregrine falcon	*Falco peregrinus*
Ring-necked pheasant	*Phasianus colchicus*
Sharp-tailed grouse	*Pedioecetes phasianellus*
Channel catfish	*Ictalurus punctatus*
Common carp	*Cyprinus carpio*
Emerald shiner	*Notropis atherinoides*
Fathead minnow	*Pimephales promelas*
Green sunfish	*Lepomis cyanellus*
Northern pike	*Esox lucius*
River carpsucker	*Carpiodes carpio*
Sand shiner	*Notropis stramineus*
Silvery minnow	*Hybognathus nuchalis*
White sucker	*Catostomus commersoni*
Flora	
American plum	*Prunus americana*
Big-leafed sagebrush	*Artemisia tridentata*
Boxelder	*Acer negundo*
Chokecherry	*Prunus virginiana*
Crested wheatgrass	*Agropyron cristatum*
Curly dock	*Rumex crispus*
Green ash	*Fraxinus pennsylvanicus*
Hardstem bulrush	*Scirpus acutus*
Mustard sp.	*Brassica (sp.)*
Plains cottonwood	*Populus deltoides*
Prairie cordgrass	*Spartina pectinata*
Red-osier dogwood	*Cornus stolonifera*
Red-top bentgrass	*Agrostis alba*
Reed-canary grass	*Phalaris arundinacea*
Russian olive	*Elaeagnus angustifolia*

Common Name	Genus and Species
Sedge sp.	*Carex (sp.)*
Smartweed	*Polygonum (sp.)*
Smooth brome	*Bromus inermis*
Spikerush	*Eleocharis (sp.)*
Streambank willow	*Salix exigua*
Swamp milkweed	*Asclepias incarnata*
Thornapple	*Crataegus (sp.)*
Western snowberry	*Symphoricarpos occidentalis*
Wheatgrass sp.	*Agropyron sp.*
Wild rose	*Rosa (sp.)*
Willow sp.	*Salix (sp.)*



F2-2(4)70

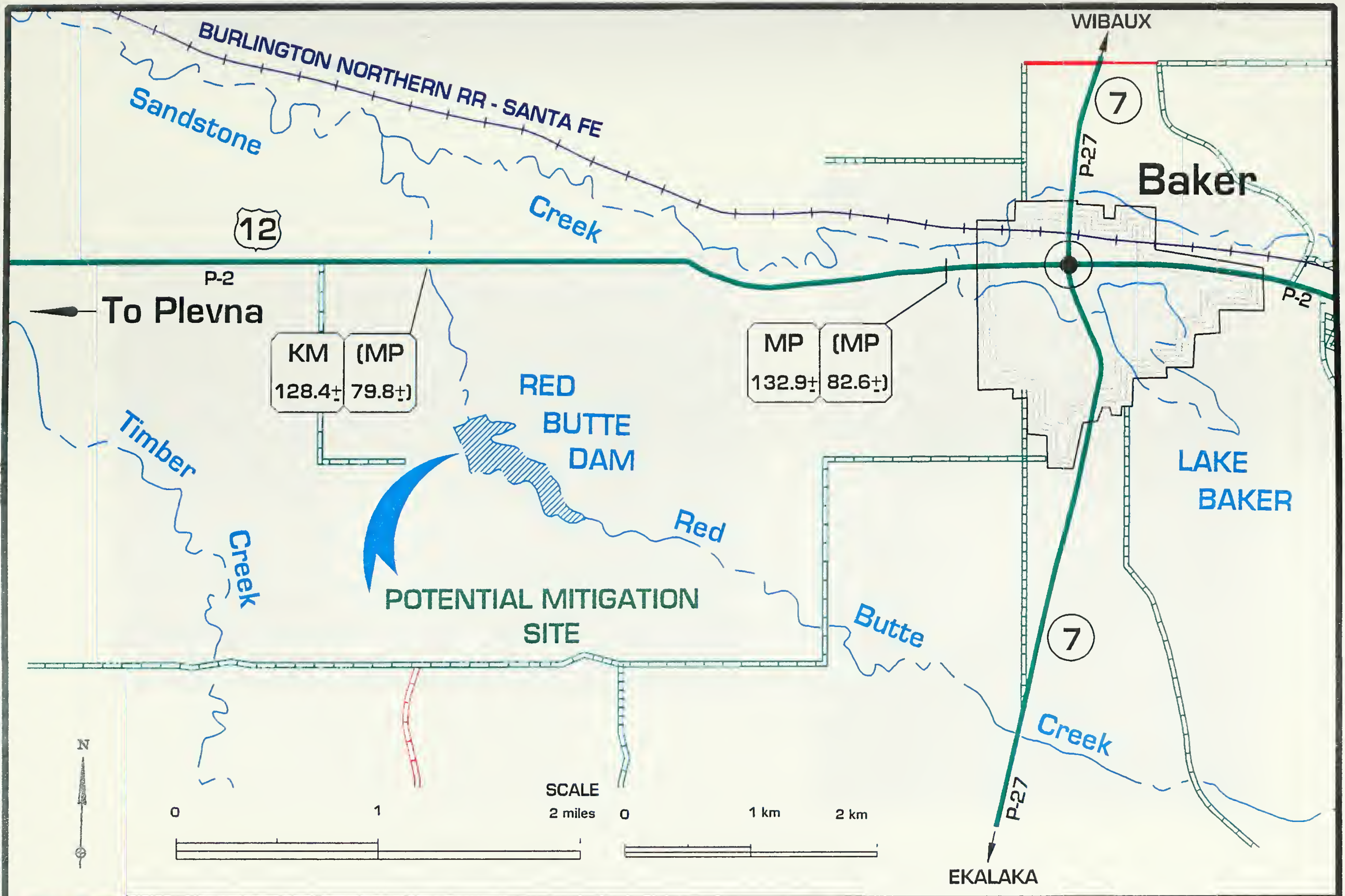
Plevna to Baker

(P.M.S. C#1276)

PROJECT LENGTH: 20.3± KM (12.6± MILES)

WETLAND LOCATIONS

Figure 3



F2-2(4)70

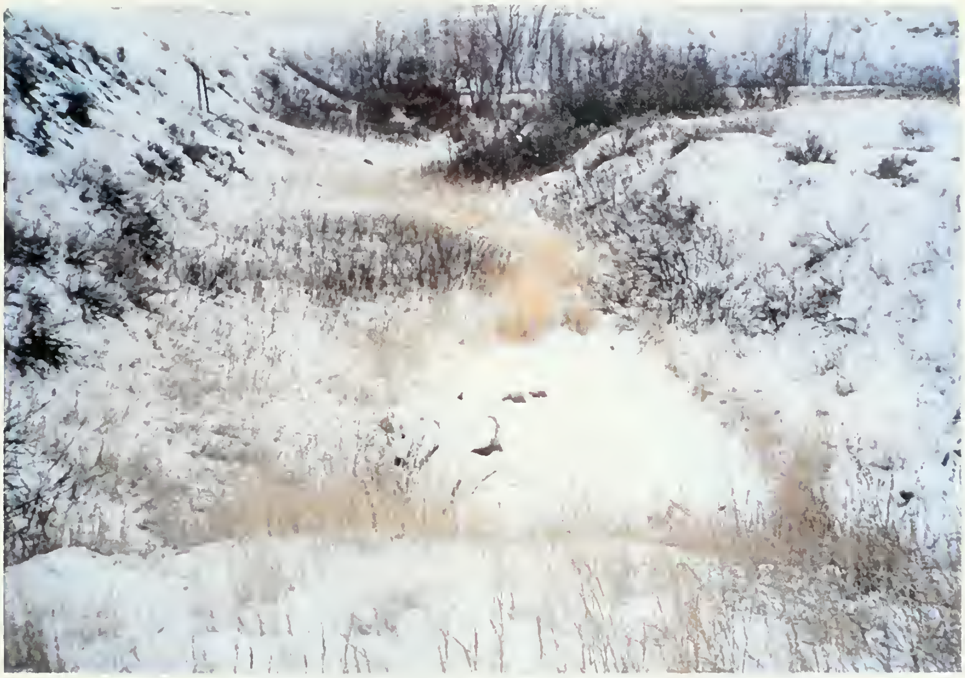
Plevna to Baker

(P.M.S. C#1276)

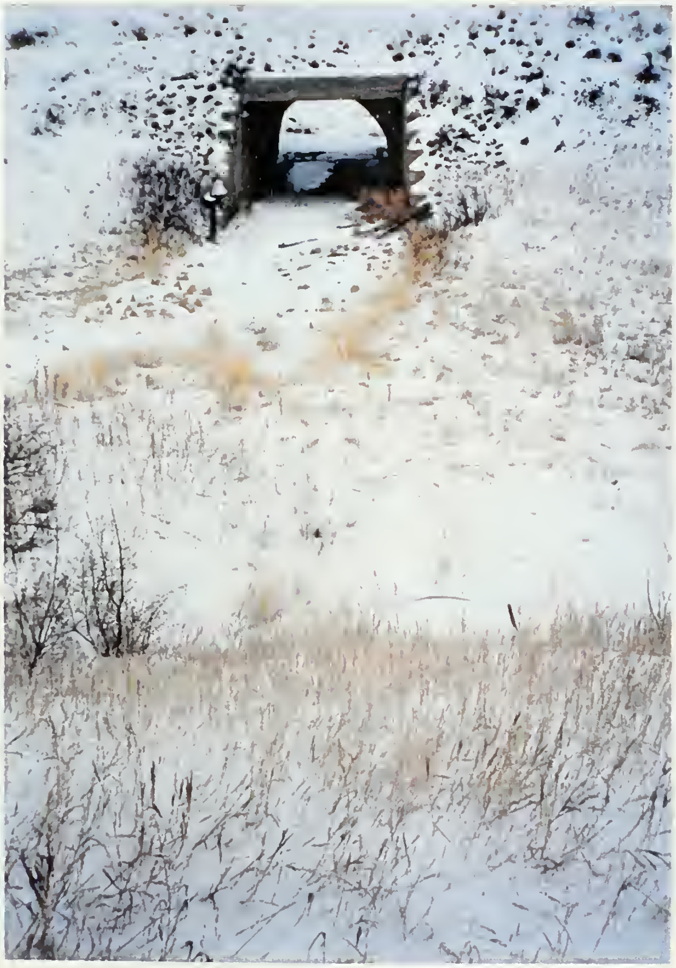
POTENTIAL WETLAND MITIGATION SITE

Figure 4

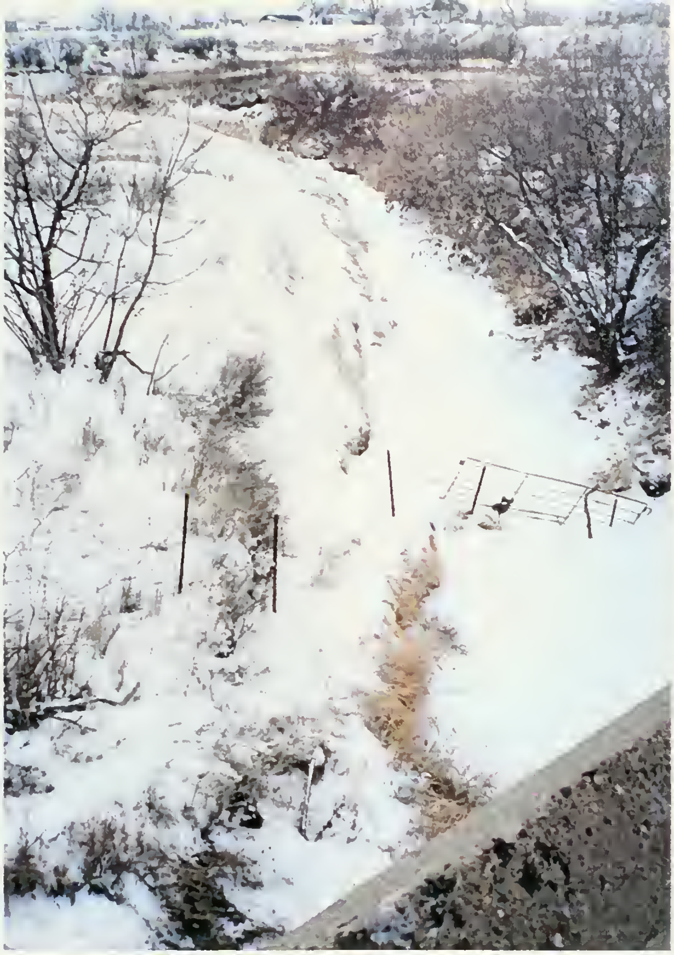
PLEVNA-BAKER WETLAND (WL) SITE PHOTOS C.N. 1276
24 January 1996



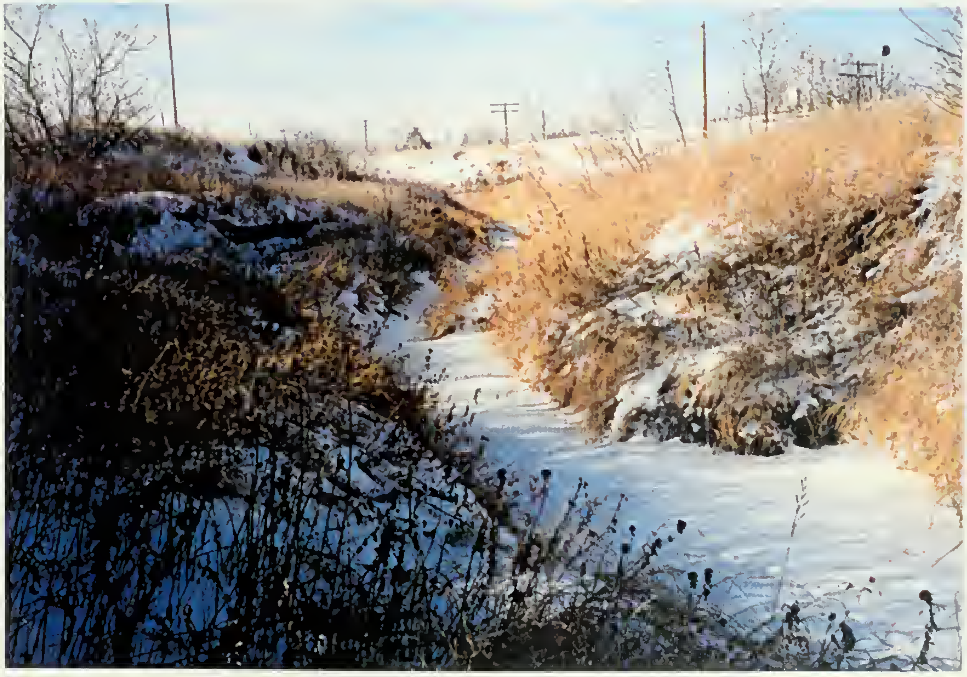
WL Site 1. MP 70.0 (R). From highway, looking toward Sandstone Creek.



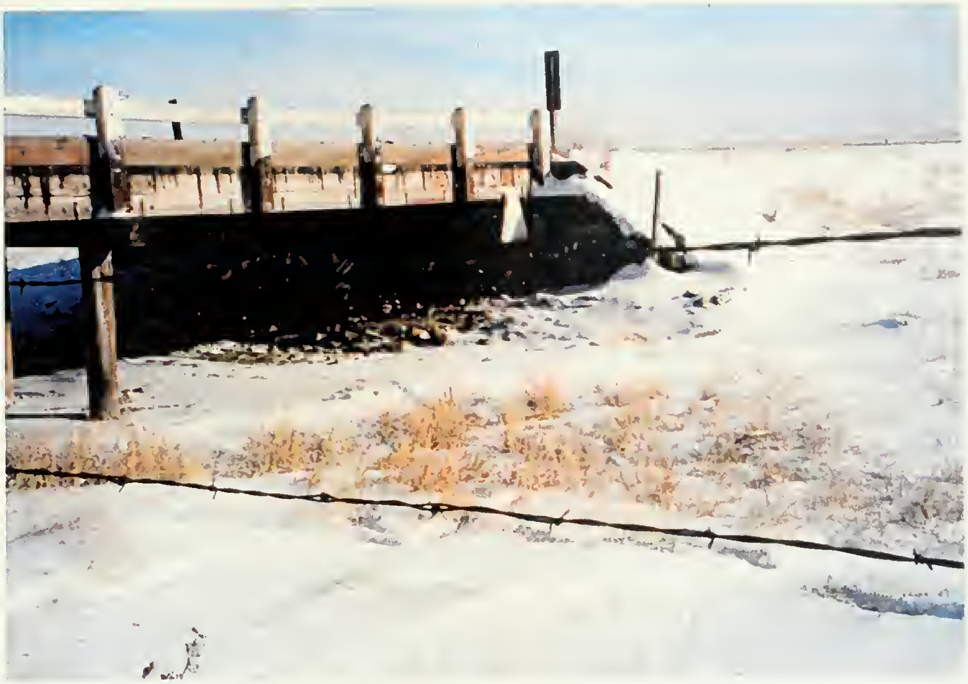
WL Site 1. MP 70.0 (L). View of wetland area just south of railway drain.



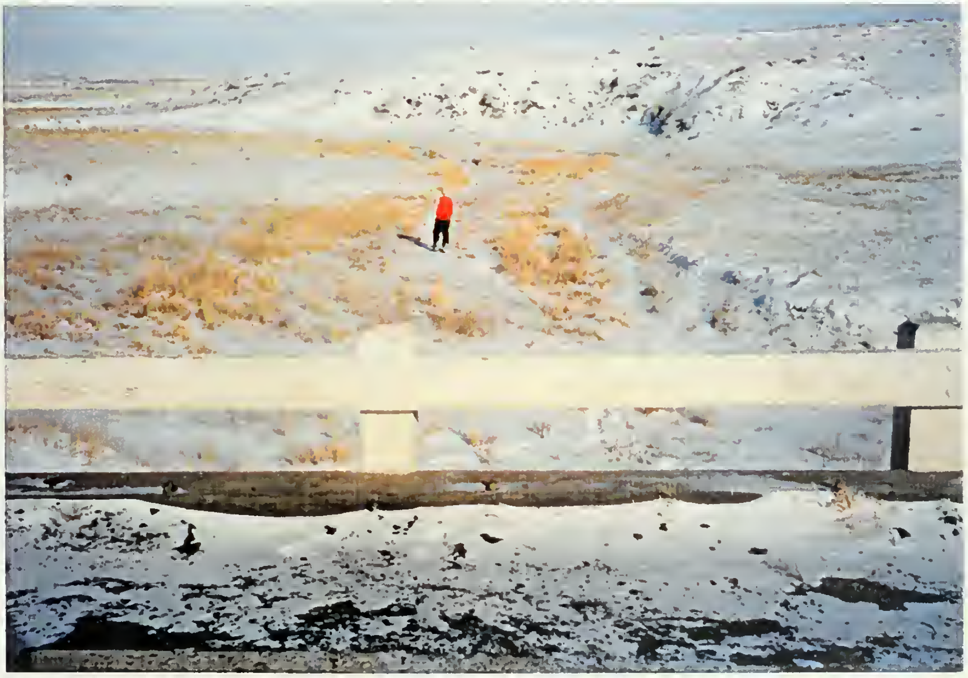
WL Site 2. MP 70.8 (R). View of Sandstone Crk. looking south from bridge.



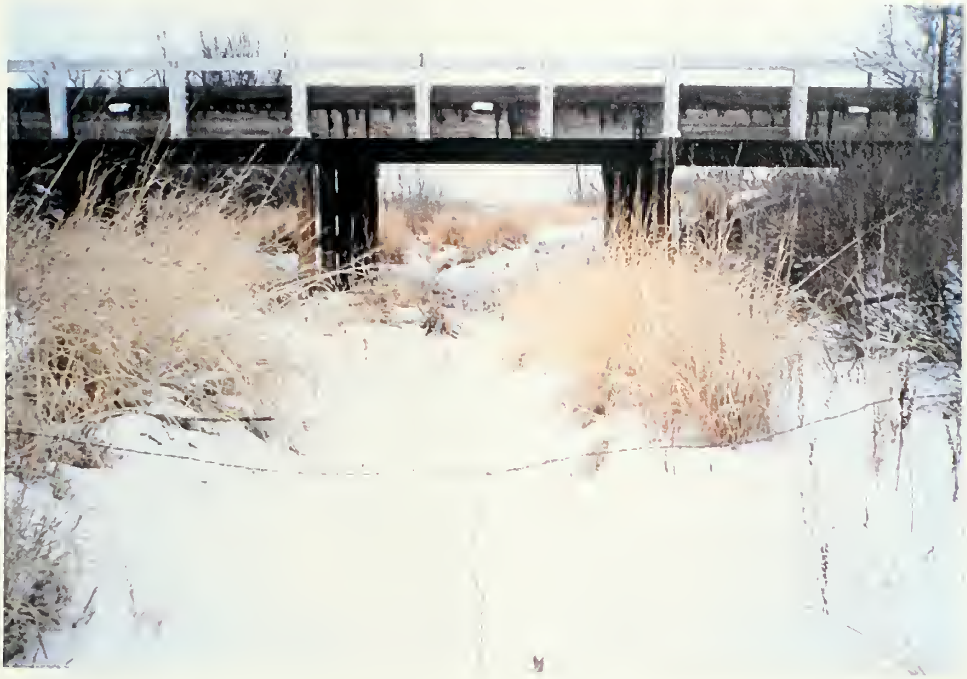
WL Site 2. MP 70.8.L.View of creek to north.



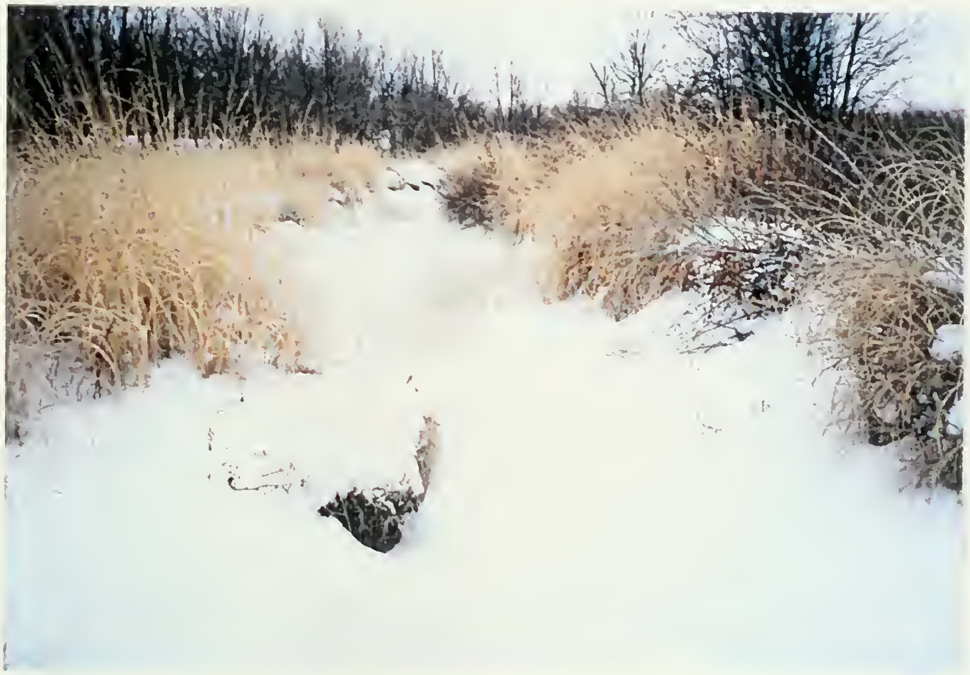
WL Site 3. MP 74.7 (R). Natural drainage with wet-site grasses in foreground, south of highway.



WL Site 3. MP 74.7 (L). Photo taken north of highway, looking south. Bare substrate under most project bridges.



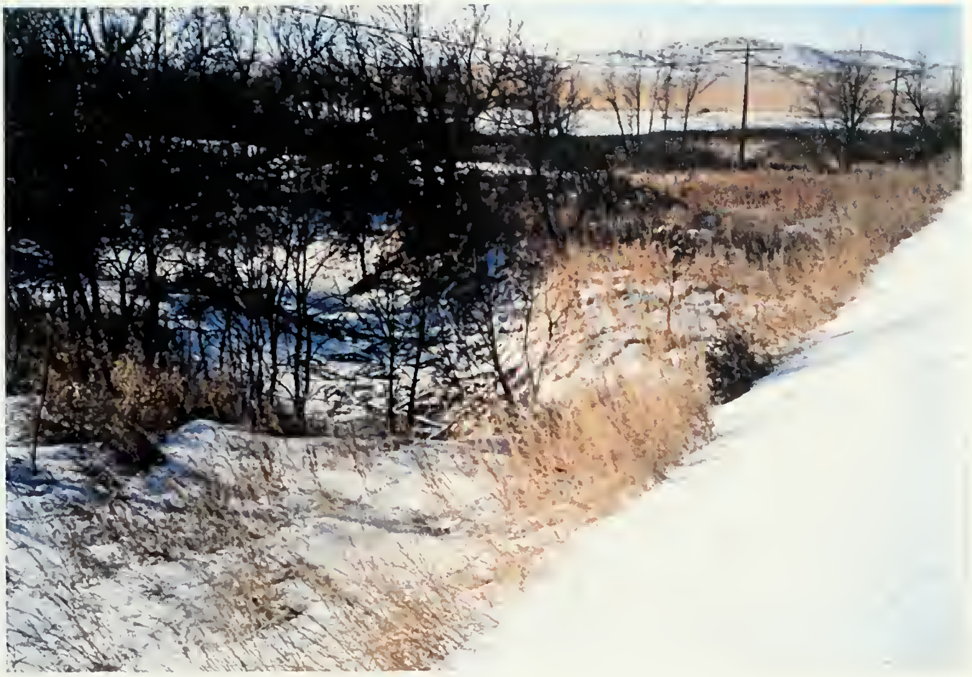
WL Site 4. MP 77.4 (R). Channelized wetland immediately south of Timber Crk. bridge.



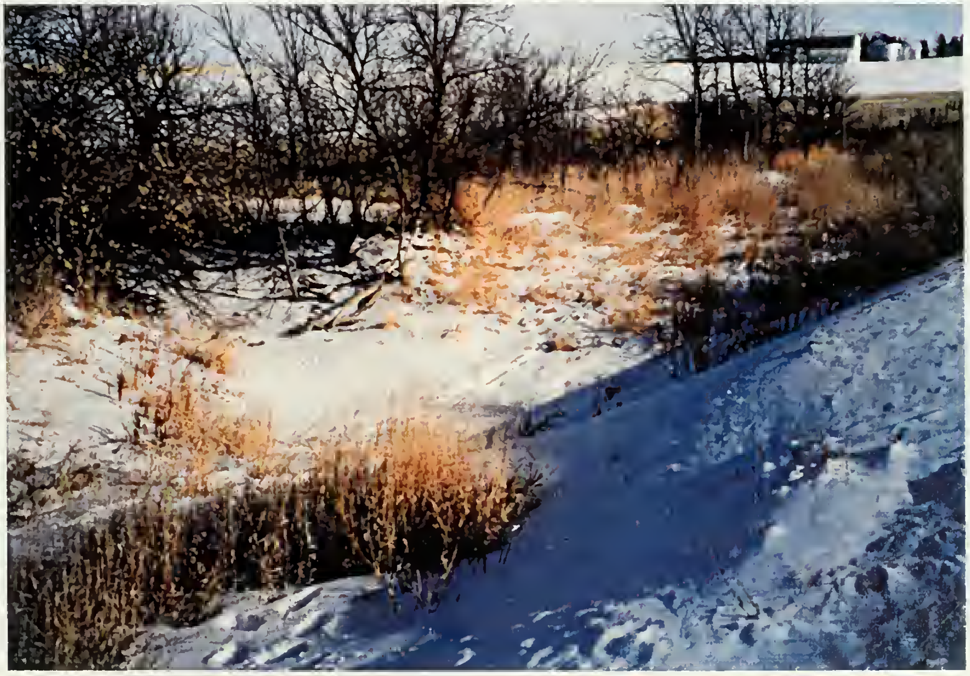
WL Site 4. MP 77.4 (R). Same photo location as above but looking up the creek , to the south.

WL Site 4. MP 77.4 (L). Wetland immediately north of Timber Crk. bridge, looking south.

WL Site 4. MP 77.4 (L). Same photo location as above but viewed downstream and to the north. Area of scouring and debris.



WL Site 4. MP 77.4+ (R). Culverted overflow channel immediately east of Timber Crk. bridge. View is to the south. Riparian wetlands.



WL Site 4. MP 77.4+ (L). Same channel as above where crossing highway, as it continues north.

WL Site 5. MP 78.6 (R). Upstream (south) puddle, iced and snow covered.

WL Site 5. MP 78.6 (L). Similar, small wetland at culvert's exit (north of road).

WL Site 6. MP 79.7-.8 (R). Wetland stringer within southside borrow area. Approx. 2 ft. width.

WL Site 6. MP 79.8 (R). Same wetland depression as above but viewed toward east as it approaches Red Butte Crk.

WL Site 7. MP 79.8 (R). Red Butte Crk., looking south.

WL Site 7. MP 79.8 (L). Red Butte Crk. as seen to the north from bridge.

WL Site 7. MP 79.8 (L). Northside borrow ditch, as it approaches creek.

WL Site 8. MP 81.2 (R). Area drainage as it approaches culvert south of highway.

WL Site 8. MP 81.2 (L). Typical inundated culvert depression caused by hydraulic action. Flow is under highway and to the north.

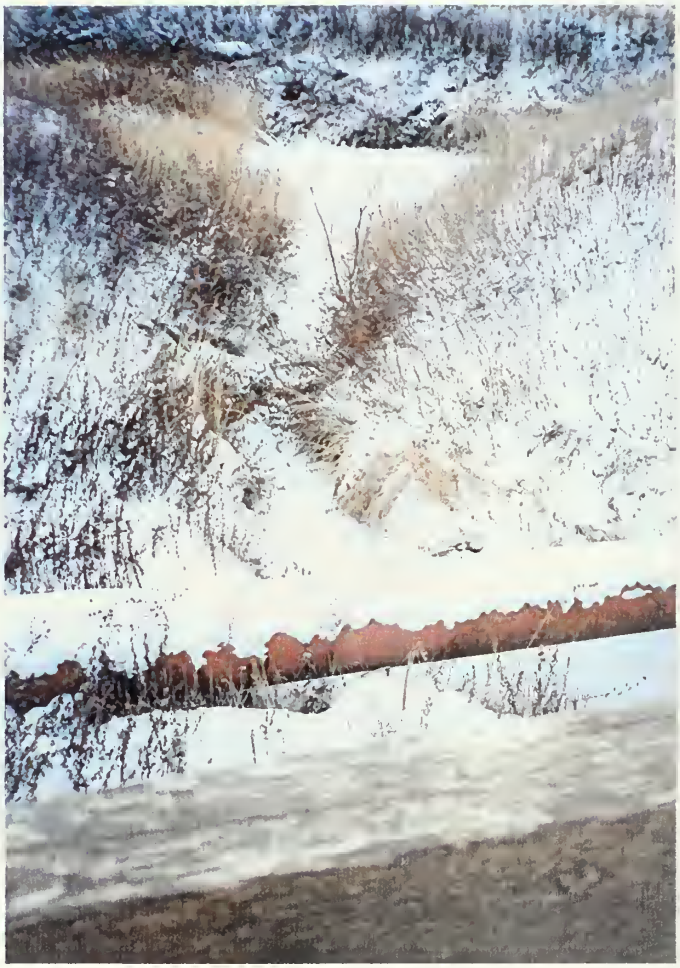
WL Site 9. MP 81.4 (R). A very small culvert-associated wetland lies in brushy copse just east of the stockpass. Low function/value.

Photo of stockpass at MP 81.4. No established wetlands at this slightly elevated site.

WL Site 10. MP 81.9 (R). Marginal wetland at southside culvert entrance. Note reddish-colored Rumex plants.

WL Site 10. MP 81.9 (L). Iced-over culvert pool downstream of highway. Wetland species Rumex again visible, if sparse.

L Site 11. MP 82.6 (R). Baker Lake Over-
low, as viewed to the south from bridge.

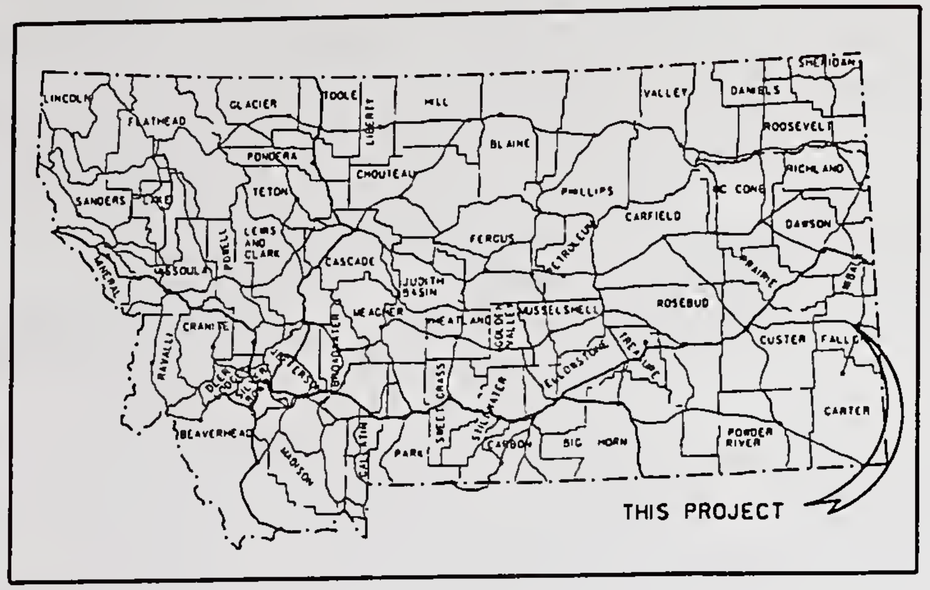


WL Site 11. MP 82.6 (L). Overflow as viewed to the north from bridge. Channel divides in photo's background.

Former Red Butte Reservoir as it presently exists. Earthen dam (at right) has breached and dewatered the basin. A possible large mitigation site for wetland banking.

Point of breach within the Red Butte Reservoir dam.

Attachment 1.2 - Approximate Wetland Boundaries on Preliminary Design Plans



MONTANA DEPARTMENT OF TRANSPORTATION

STATE	PROJECT NUMBER	SHEET NO.
MONTANA		

A.D.T. - 1994 - 880
A.D.T. - 2014 - 1200
D.H.V. - 170
D. - 58 - 45%
T. - 12.2%
V. - 40.0%

LETTING DATE - ____________

FEDERAL AID PROJECT NO. F 2-2( )70 .

GRADE, GRAVEL, PL.MIX SURF.,SEAL & COVER

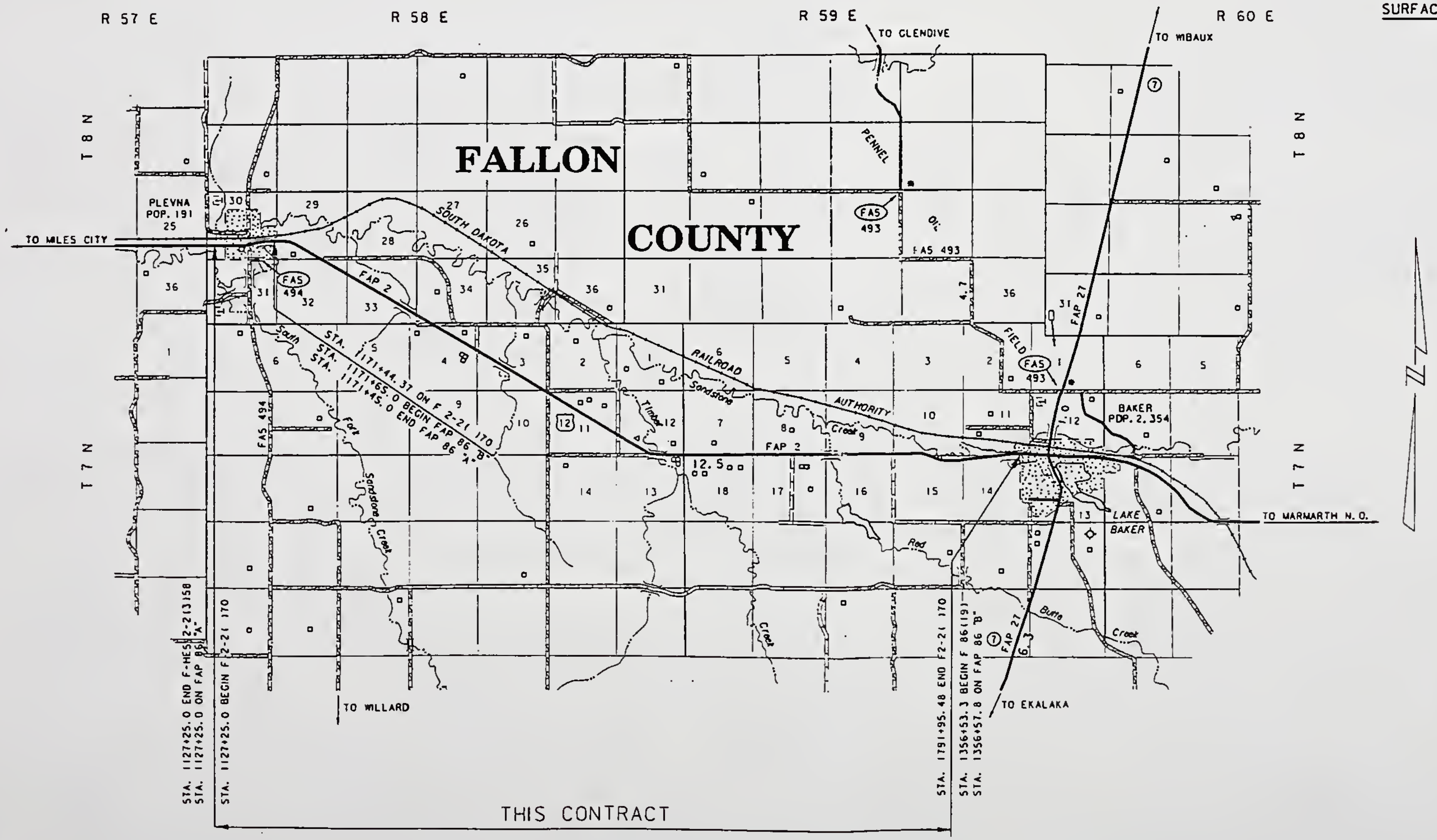
PLEVNA - BAKER

FALLON COUNTY

LENGTH 12.6 MILES

SCALES
VERTICAL: 1 INCH = 10 FEET
HORIZONTAL: 1 INCH = 100 FEET
CROSS SECTION - HORIZONTAL & VERTICAL: 1 INCH = 10 FEET
REDUCED PRINTS APPROXIMATELY 1/2 ORIGINAL SCALE

SURFACING SOURCE CONTRACTOR FURNISHED



PRELIMINARY
FOR PLAN IN HAND ONLY

RELATED PROJECTS

ASSOCIATED PROJECT AGREEMENT NUMBERS

R/W & I.C.	
P.E.	F 2-2(4)70

MONTANA
DEPARTMENT OF TRANSPORTATION

APPROVED : ____________ 19____

MARVIN DYE
DIRECTOR OF TRANSPORTATION

BY ____________
PRECONSTRUCTION ENGINEER

CARL S. PEIL
2614PE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

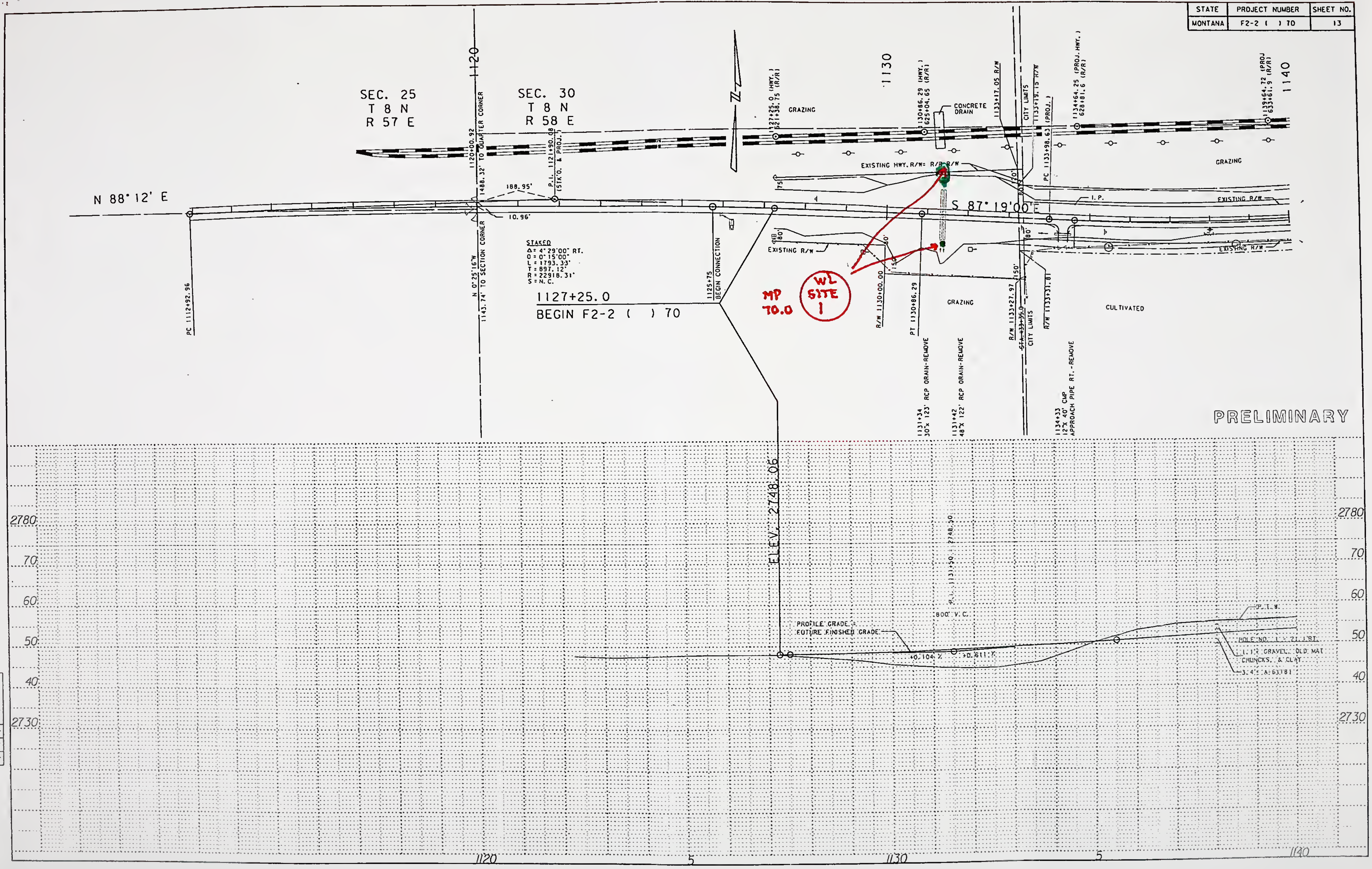
APPROVED :

____________ ____________
DIVISION ADMINISTRATOR DATE

MONTANA DEPARTMENT OF TRANSPORTATION

MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	13



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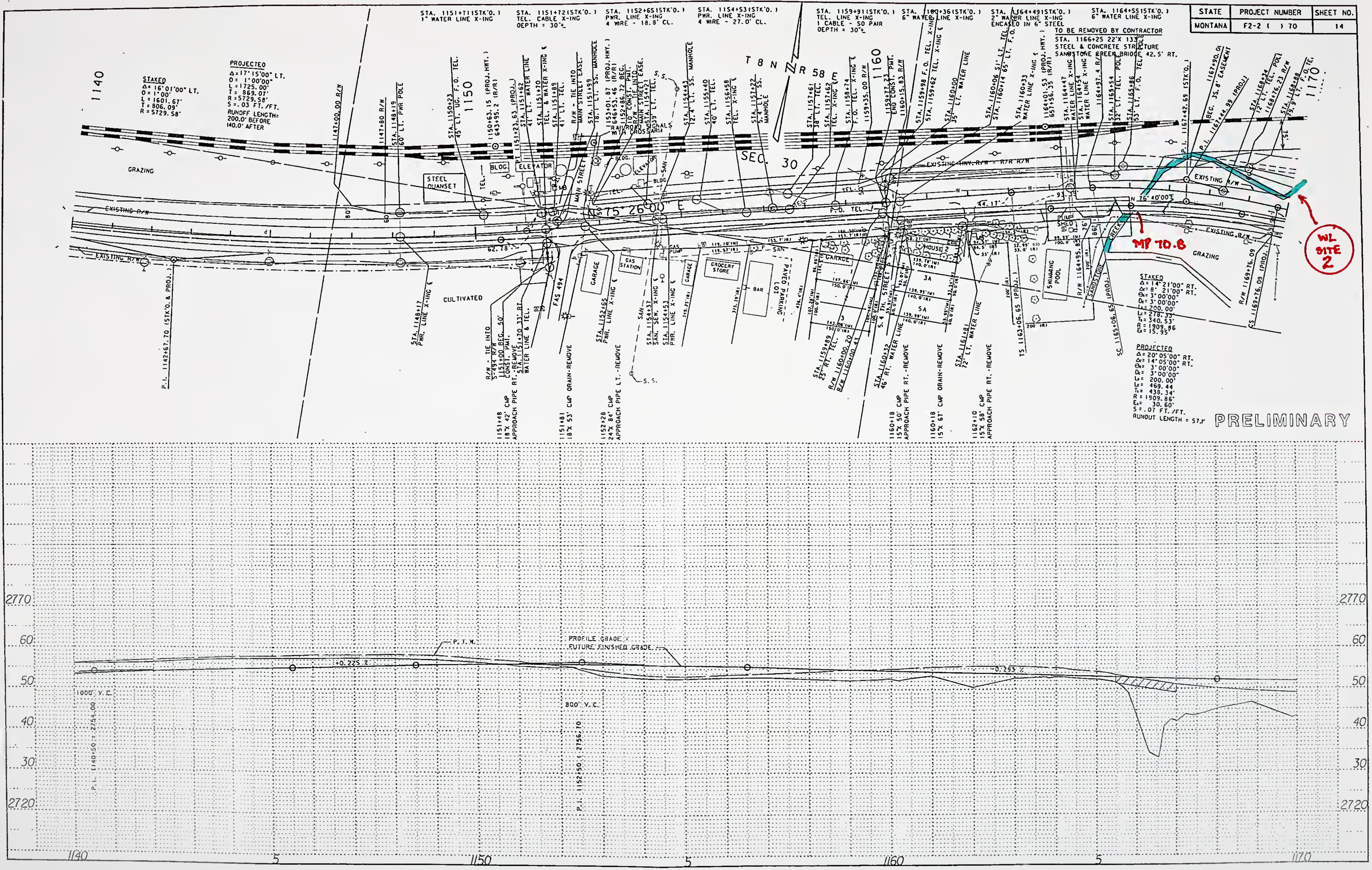
STA. 1151+71 (STK'O.) 1" WATER LINE X-ING
STA. 1151+72 (STK'O.) TEL. CABLE X-ING DEPTH = 30"±
STA. 1152+65 (STK'O.) PWR. LINE X-ING 4 WIRE - 18.8' CL.
STA. 1154+53 (STK'O.) PWR. LINE X-ING 4 WIRE - 27.0' CL.
STA. 1159+91 (STK'O.) TEL. LINE X-ING 1 CABLE - 50 PAIR DEPTH = 30"±
STA. 1160+36 (STK'O.) 6" WATER LINE X-ING
STA. 1164+49 (STK'O.) 2" WATER LINE X-ING ENCASED IN 6" STEEL
STA. 1164+55 (STK'O.) 6" WATER LINE X-ING
TO BE REMOVED BY CONTRACTOR
STA. 1166+25 22'X 133' STEEL & CONCRETE STRUCTURE SANDSTONE CREEK BRIDGE 42.5' RT.
1140
STAKED
Δ= 16°01'00" LT.
D= 1°00'
L= 1601.67'
T= 806.09'
R= 5729.58'
PROJECTED
Δ= 17°15'00" LT.
D= 1°00'00"
L= 1725.00'
T= 869.07'
R= 5729.58'
S= .03 FT./FT.
RUNOFF LENGTH= 200.0' BEFORE 140.0' AFTER
GRAZING
EXISTING R/W
CULTIVATED
STEEL QUONSET
BLDG.
ELEVATOR
MAIN STREET
1150
T 8 N
R 58 E
SEC. 30
N 75°26'00" E
GAS STATION
GAS PUMP
GARAGE
GROCERY STORE
BAR
PAVED PARKING LOT
HOUSE
SWIMMING POOL
SHED
SANDSTONE CREEK
EXISTING HWY. R/W - R/R R/W
N 76°40'00" E
1160
1170
FAS 494
P.I. 1142+67.70 (STK'O. & PROJ.)
STAKED
Δ= 14°21'00" RT.
Dc= 8°21'00" RT.
θs= 3°00'00"
Ds= 3°00'00"
Ls= 200.00'
Lt= 278.33'
Ts= 340.53'
R= 1909.86
Es= 15.95
PROJECTED
Δ= 20°05'00" RT.
Dc= 14°05'00" RT.
θs= 3°00'00"
Ds= 3°00'00"
Ls= 200.00'
Lc= 469.44
Ts= 438.34'
R= 1909.86'
Es= 30.60'
S= .07 FT./FT.
RUNOUT LENGTH = 57.r
MP 70.8
WL SITE 2
PRELIMINARY
1151+48 18"X 42' CMP APPROACH PIPE RT.-REMOVE
1151+81 18"X 53' CMP DRAIN-REMOVE
1152+28 24"X 84' CMP APPROACH PIPE LT.-REMOVE
1160+18 15"X 50' CMP APPROACH PIPE RT.-REMOVE
1160+18 15"X 61' CMP DRAIN-REMOVE
1162+10 15"X 58' CMP APPROACH PIPE RT.-REMOVE
P.T.W.
PROFILE GRADE = FUTURE FINISHED GRADE
+0.225 %
-0.293 %
1000' V.C.
800' V.C.
P.I. 1140+50 = 2754.00
P.I. 1152+50 = 2756.70
2770
60
50
40
30
2720
1140
5
1150
5
1160
5
1170
MONTANA DEPARTMENT OF TRANSPORTATION
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
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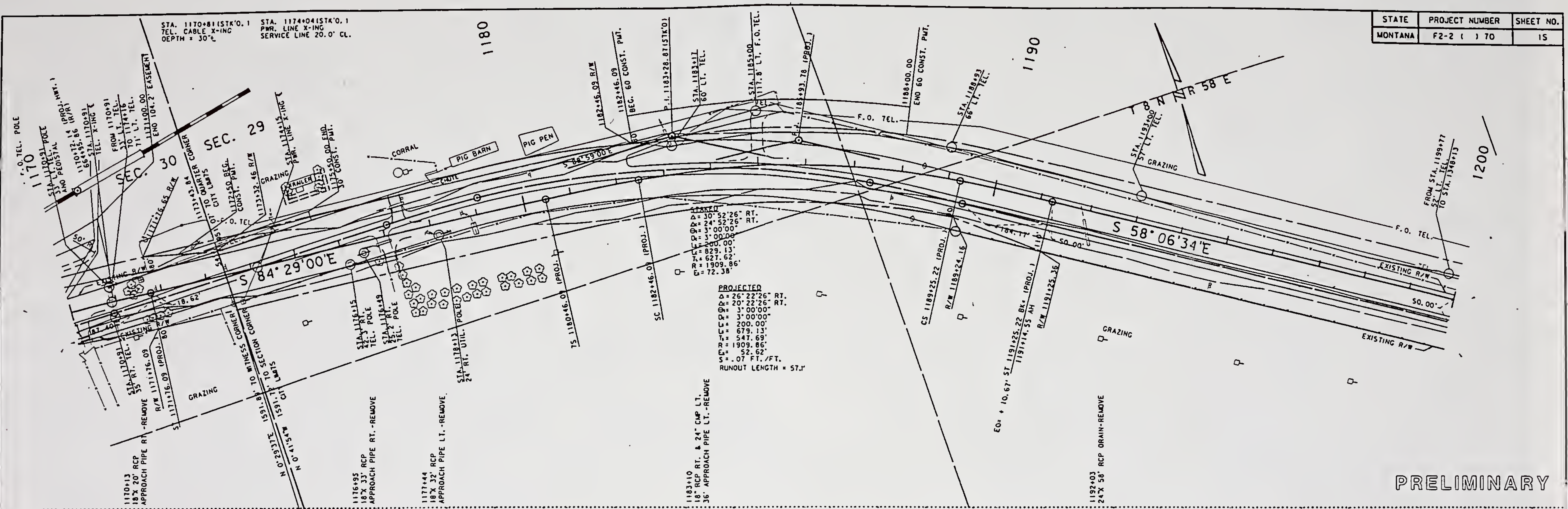
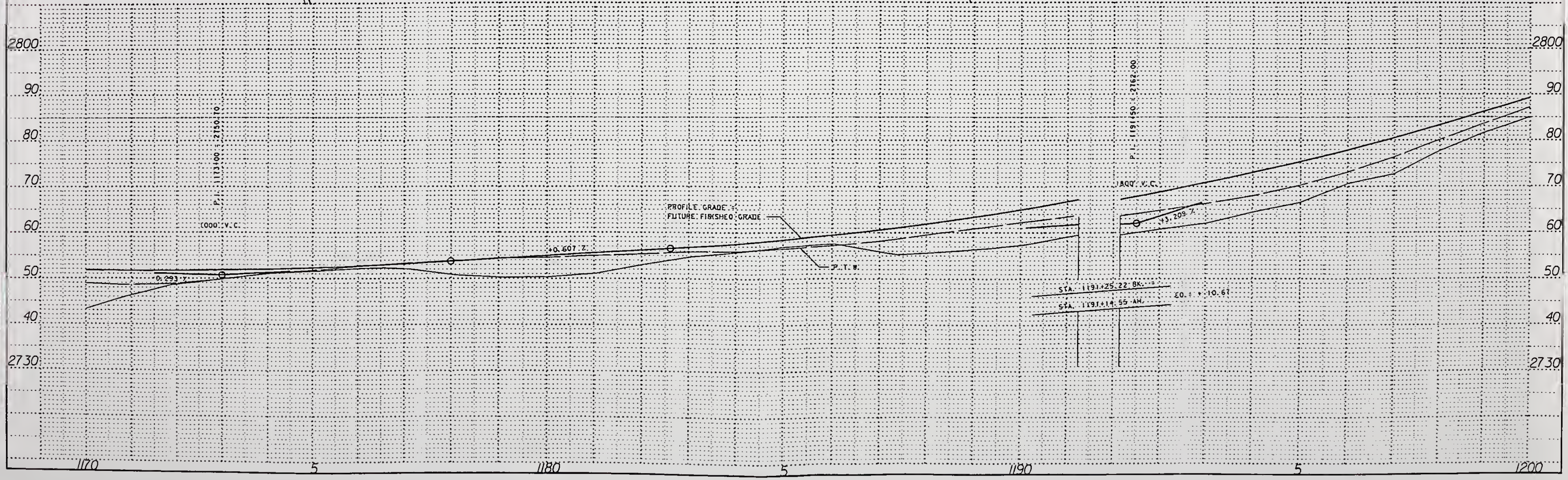


PRELIMINARY



MONTANA DEPARTMENT OF TRANSPORTATION

MONTANA CADD

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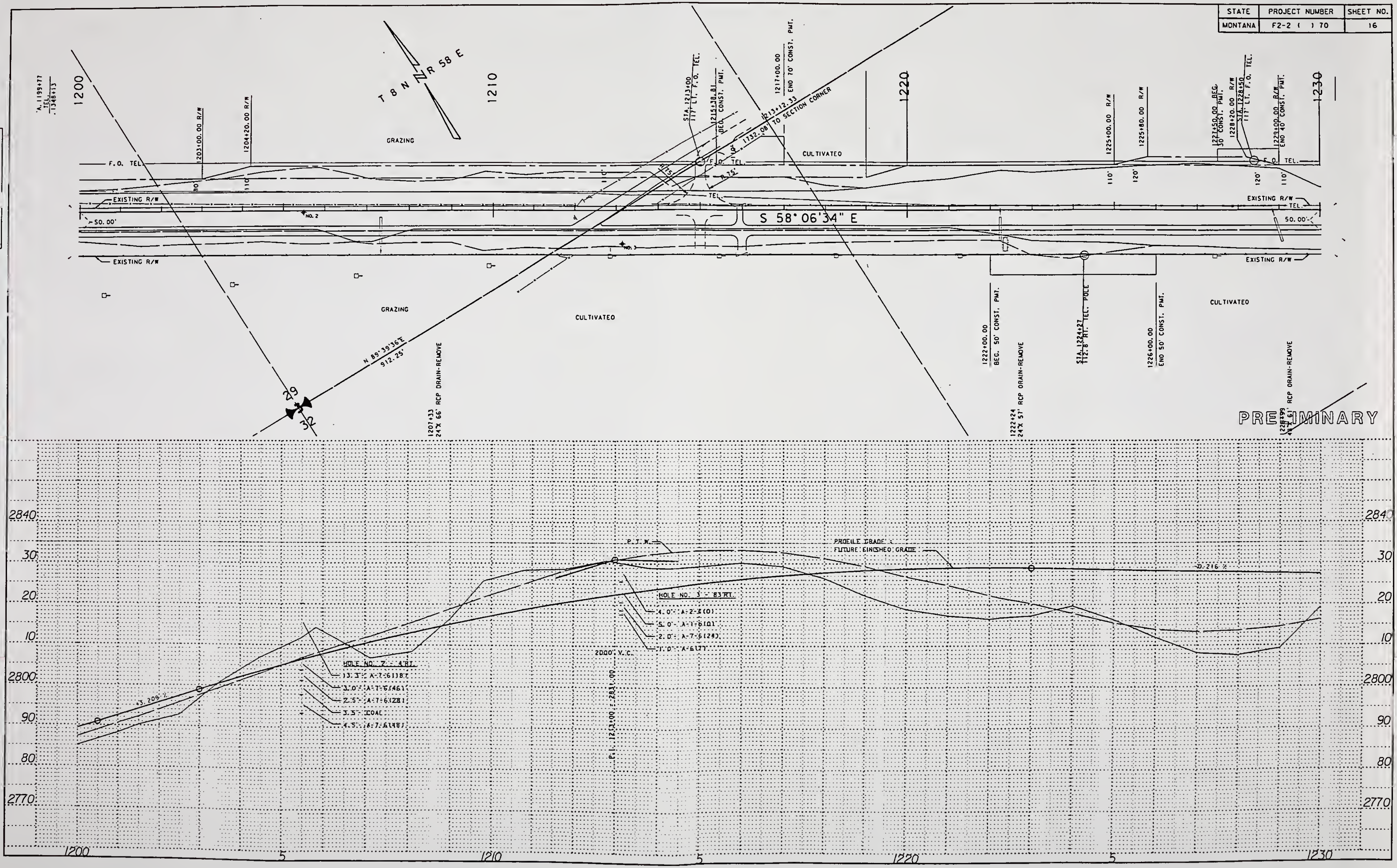
MONTANA DEPARTMENT OF TRANSPORTATION



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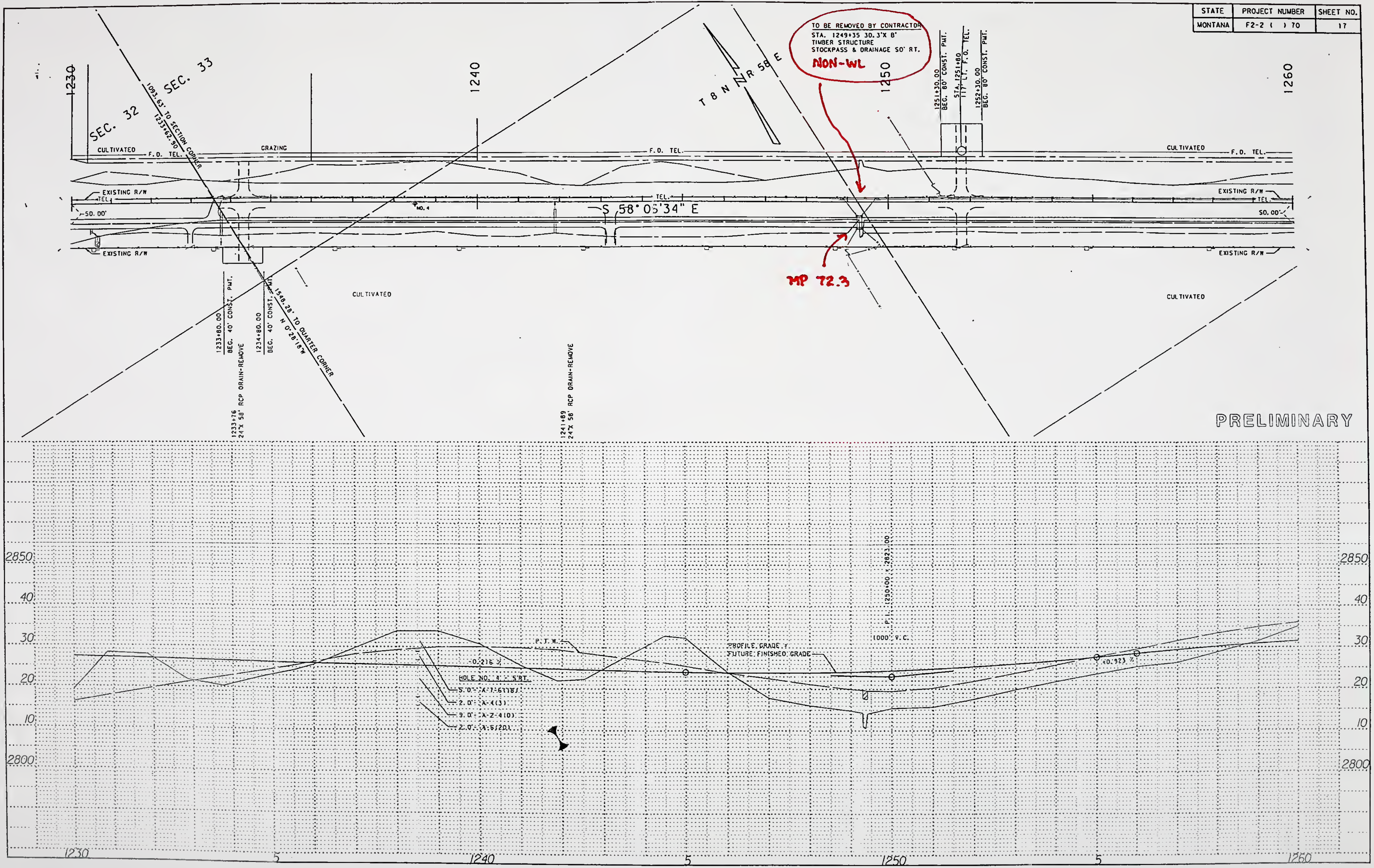
MONTANA DEPARTMENT OF TRANSPORTATION



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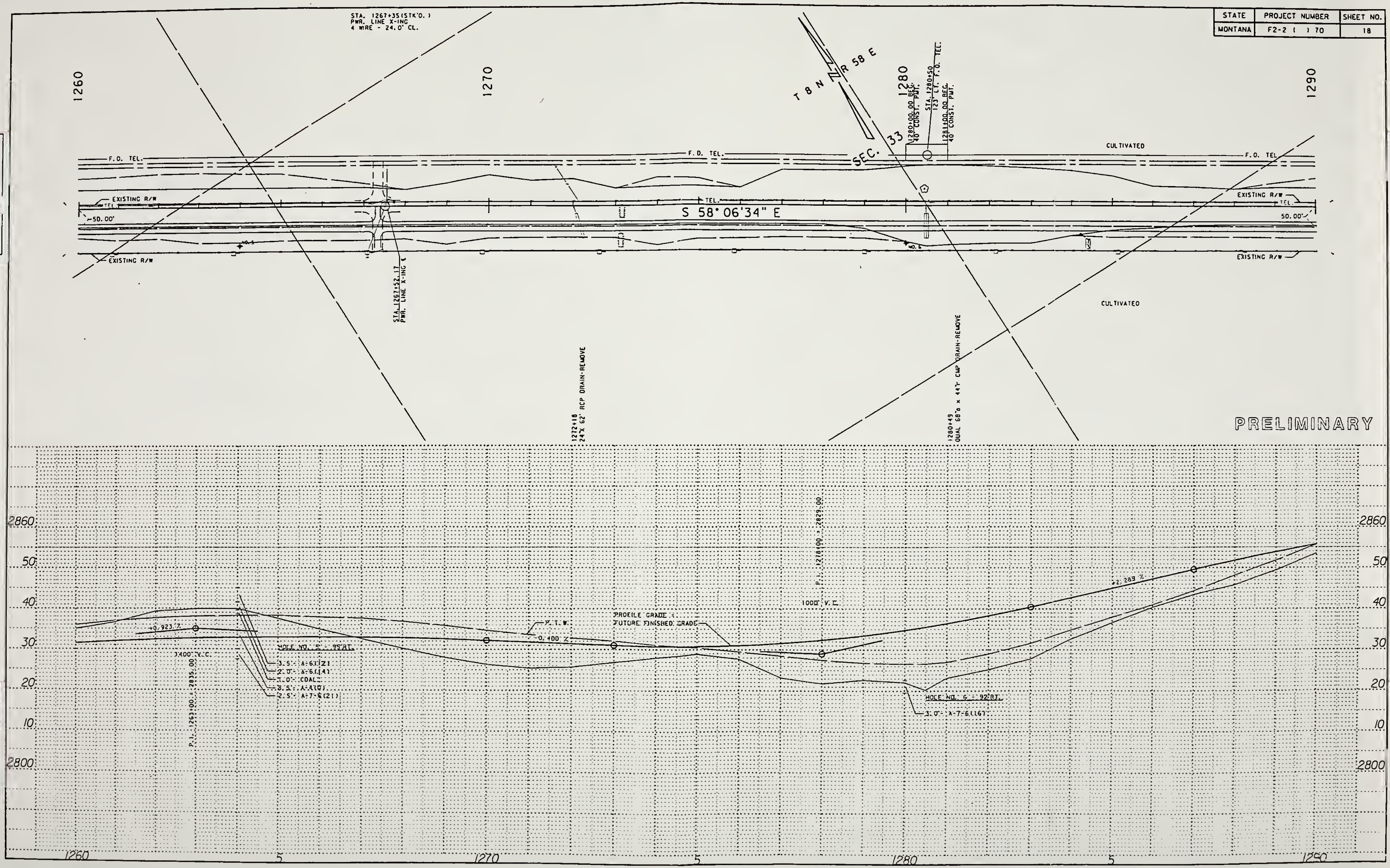
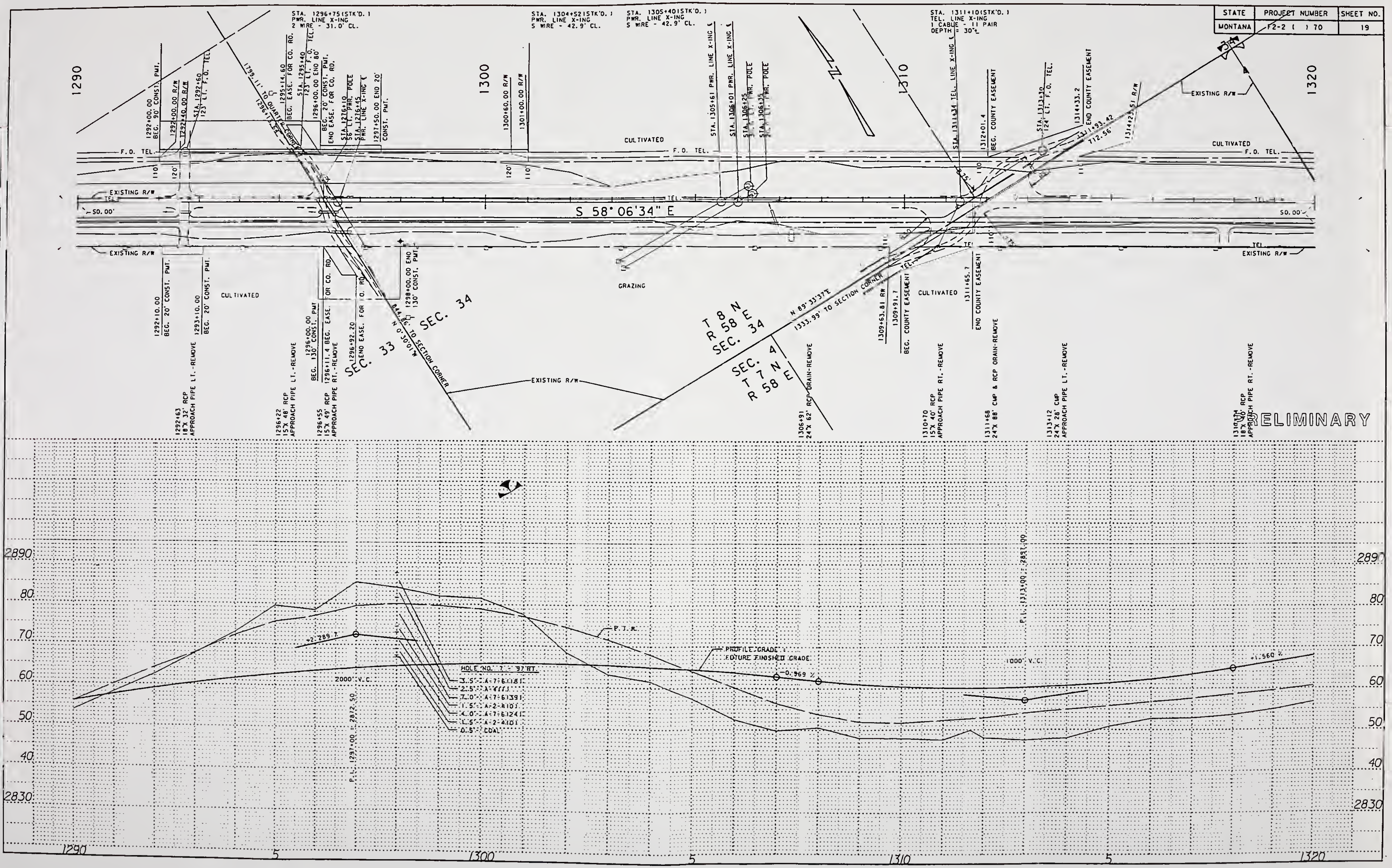


PRELIMINARY

MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	19

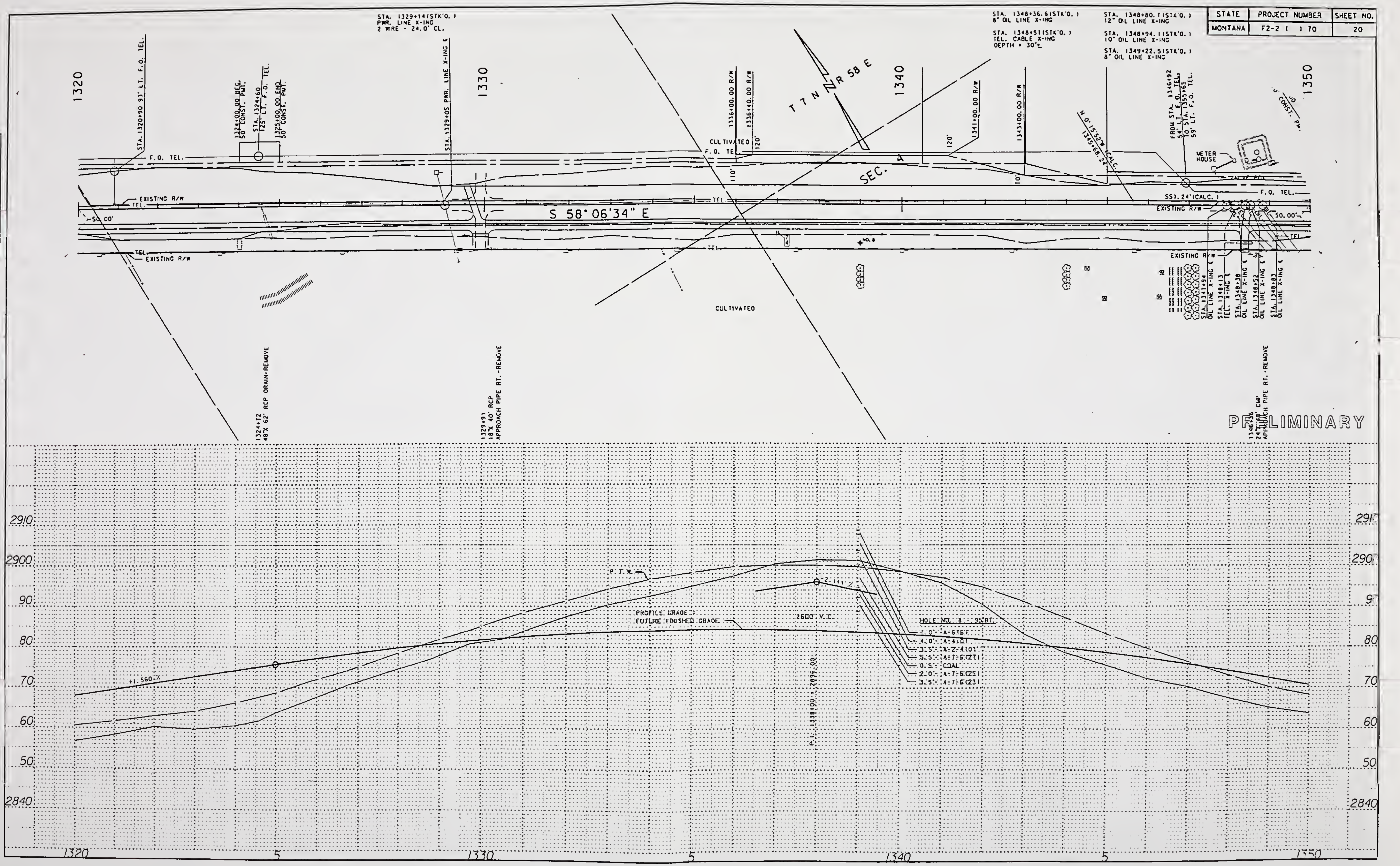

STA. 1296+75(STK'D.) PWR. LINE X-ING 2 WIRE - 31.0' CL.
STA. 1304+52(STK'D.) PWR. LINE X-ING 5 WIRE - 42.9' CL.
STA. 1305+40(STK'D.) PWR. LINE X-ING 5 WIRE - 42.9' CL.
STA. 1311+10(STK'D.) TEL. LINE X-ING 1 CABLE - 11 PAIR DEPTH = 30"±
1290
1300
1310
1320
1292+00.00 BEG. 90' CONST. PMT.
1292+00.00 R/W
1292+40.00 R/W
STA. 1292+60 123' LT. F.O. TEL.
1295+14.60 BEG. EASE. FOR CO. RD.
STA. 1295+40 123' LT. F.O. TEL.
1296+00.00 END 80' BEG. 20' CONST. PMT.
END EASE. FOR CO. RD.
STA. 1296+10 56' LT. PWR. POLE
STA. 1296+45 PWR. LINE X-ING
1297+50.00 END 20' CONST. PMT.
1300+60.00 R/W
1301+00.00 R/W
STA. 1305+61 PWR. LINE X-ING
STA. 1306+01 PWR. LINE X-ING
STA. 1306+25 PWR. POLE
STA. 1306+35 PWR. POLE
STA. 1311+34 TEL. LINE X-ING
1312+01.4 BEG. COUNTY EASEMENT
STA. 1313+10 124' LT. F.O. TEL.
1314+33.2 END COUNTY EASEMENT
1314+21.51 R/W
1311+93.42
712.56
EXISTING R/W
CULTIVATED
F.O. TEL.
TEL.
S 58°06'34" E
50.00'
GRAZING
1292+10.00 BEG. 20' CONST. PMT.
1293+10.00 BEG. 20' CONST. PMT.
1296+00.00 BEG. 130' CONST. PMT.
1296+11.4 BEG. EASE. FOR CO. RD.
1296+92.20 END EASE. FOR CO. RD.
1298+00.00 END 130' CONST. PMT.
1795.11' TO QUARTER CORNER
N 0°30'01" W 844.86' TO SECTION CORNER
SEC. 33
SEC. 34
T 8 N R 58 E SEC. 34
SEC. 4 T 7 N R 58 E
N 89°33'37"E 1333.99' TO SECTION CORNER
1309+63.81 RW
1309+91.7 BEG. COUNTY EASEMENT
1311+65.7 END COUNTY EASEMENT
1292+63 18"X 32' RCP APPROACH PIPE LT.-REMOVE
1296+22 15"X 48' RCP APPROACH PIPE LT.-REMOVE
1296+55 15"X 49' RCP APPROACH PIPE RT.-REMOVE
1306+91 24"X 62' RCP DRAIN-REMOVE
1310+70 15"X 40' RCP APPROACH PIPE RT.-REMOVE
1311+68 24"X 88' CMP & RCP DRAIN-REMOVE
1313+12 24"X 28' CMP APPROACH PIPE LT.-REMOVE
1319+74 18"X 40' RCP APPROACH PIPE RT.-REMOVE
PRELIMINARY
2890
80
70
60
50
40
2830
+2.289 %
2000' V.C.
P.I. 1297+00 = 2872.50
HOLE NO. 7 - 37' RT.
3.5' - A-7-6(18)
2.5' - A-4(1)
7.0' - A-7-6(39)
1.5' - A-2-4(0)
4.0' - A-7-6(24)
1.5' - A-2-4(0)
0.5' - COAL
P.T.R.
PROFILE GRADE
FUTURE FINISHED GRADE
-0.969 %
1000' V.C.
P.I. 1313+00 = 2851.00
+1.560 %
1290
5
1300
5
1310
5
1320

MONTANA DEPARTMENT OF TRANSPORTATION

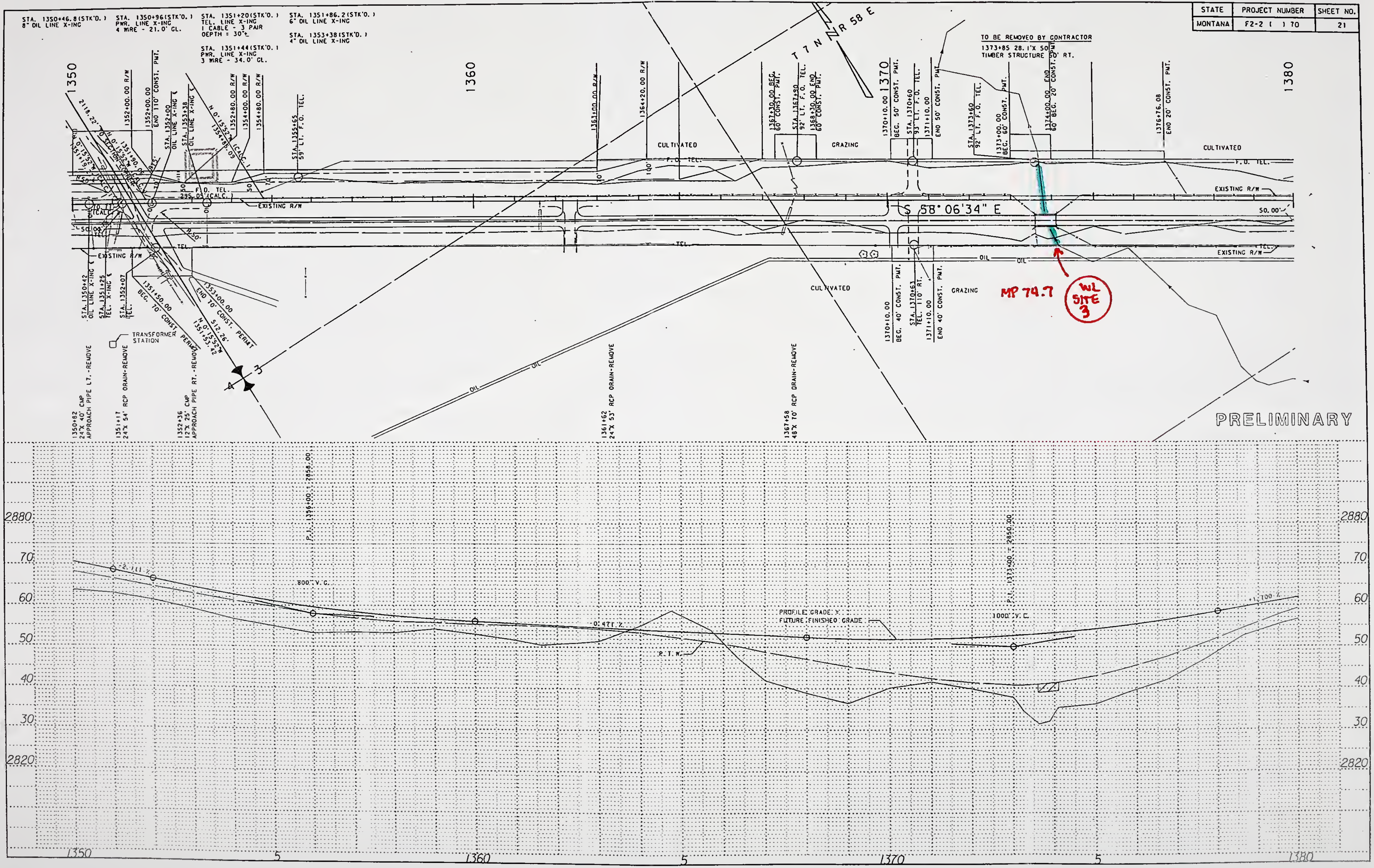
MONTANA CADD

3	6	8
2	5	1
1	1	1

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	20

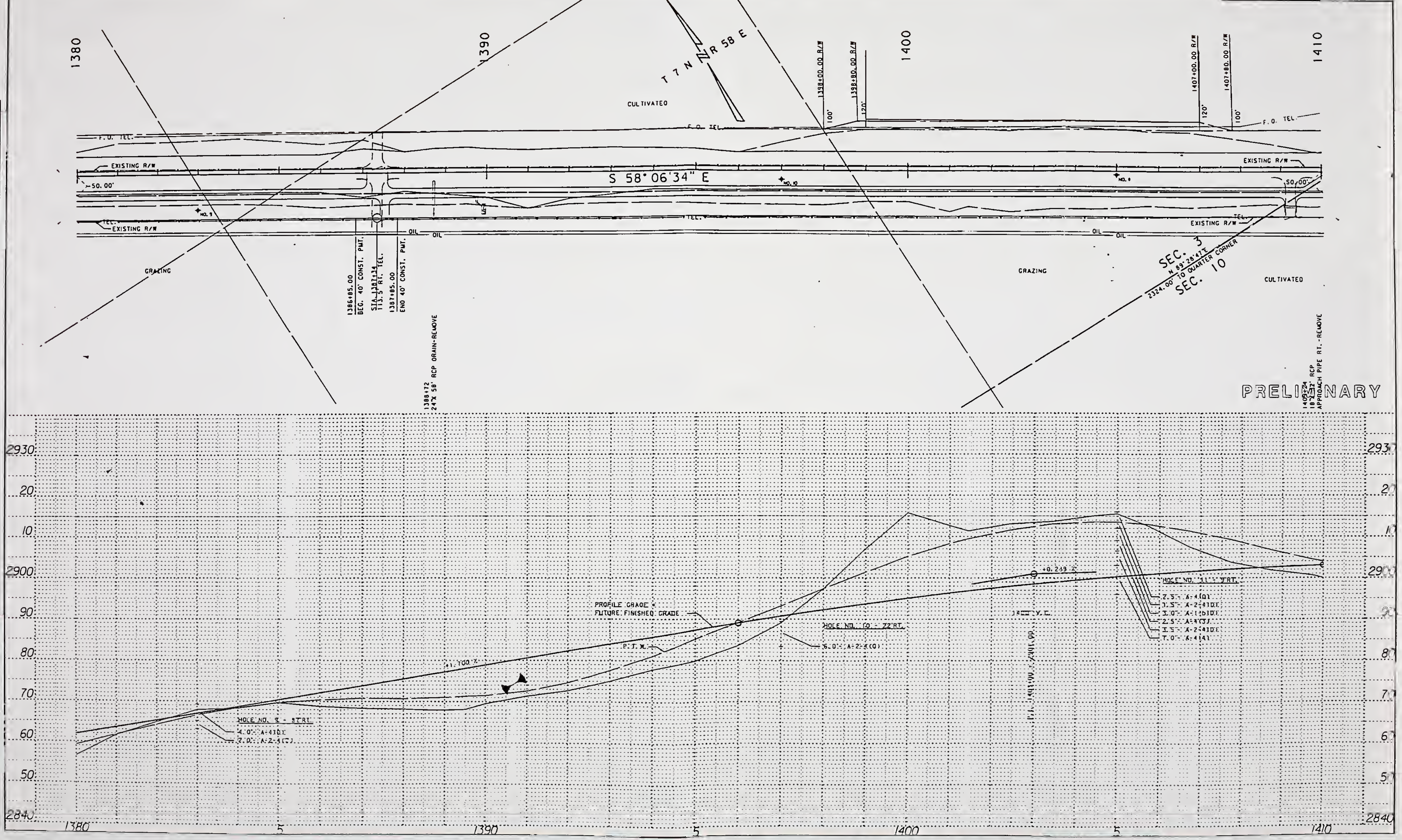


STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	21

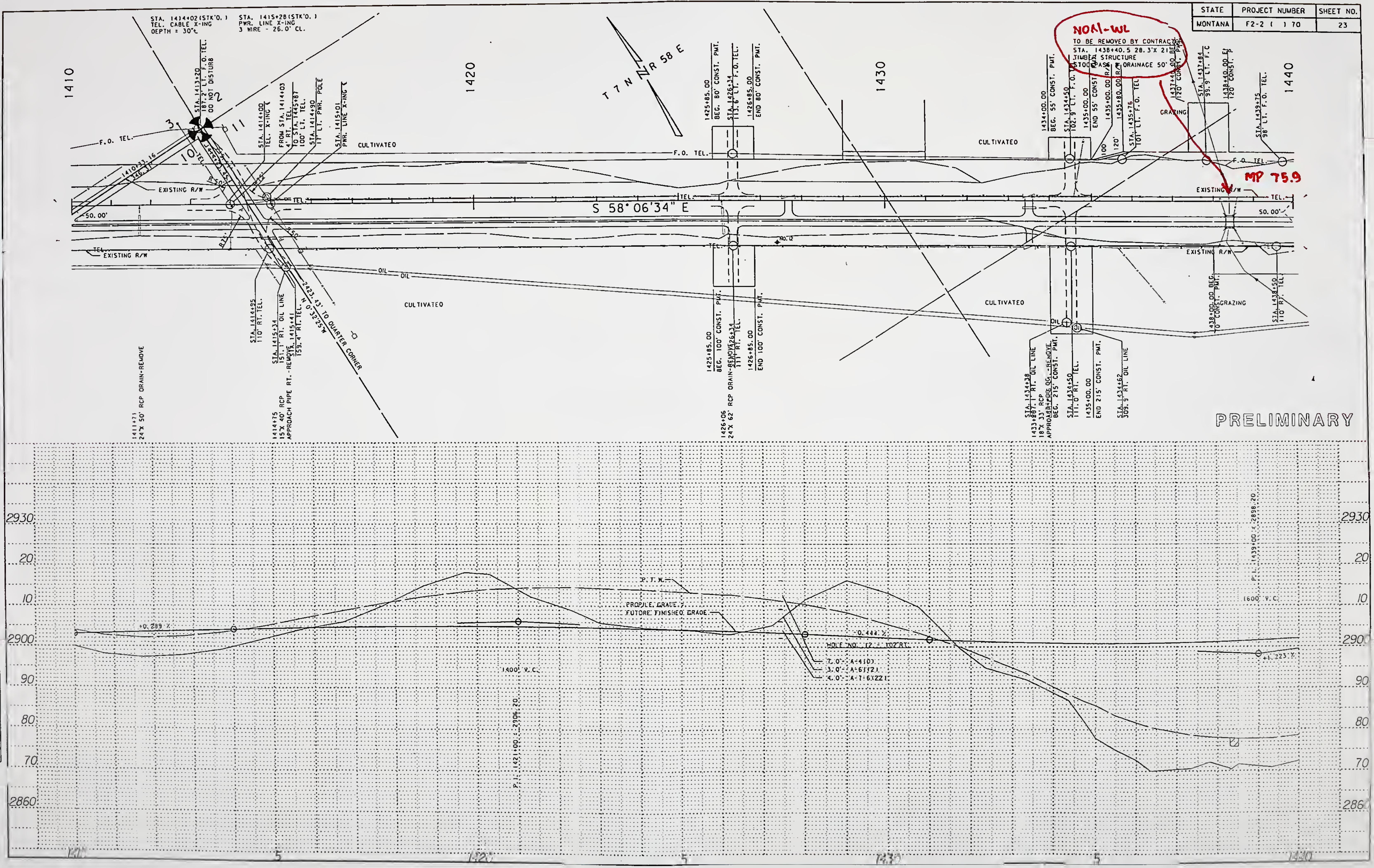


STA. 1350+46.8 (STK'D.) 8" OIL LINE X-ING
STA. 1350+96 (STK'D.) PWR. LINE X-ING 4 WIRE - 21.0' CL.
STA. 1351+20 (STK'D.) TEL. LINE X-ING 1 CABLE - 3 PAIR DEPTH = 30"±
STA. 1351+44 (STK'D.) PWR. LINE X-ING 3 WIRE - 34.0' CL.
STA. 1351+86.2 (STK'D.) 6" OIL LINE X-ING
STA. 1353+38 (STK'D.) 4" OIL LINE X-ING
TO BE REMOVED BY CONTRACTOR
1373+85 28.1'X 50' TIMBER STRUCTURE 50' RT.
T 7 N
R 58 E
1350
1360
1370
1380
CULTIVATED
GRAZING
F.O. TEL.
EXISTING R/W
S 58° 06'34" E
TEL.
OIL
PRELIMINARY
MP 74.7
WL SITE 3
1350+82 24"X 40' CMP APPROACH PIPE LT.-REMOVE
1351+17 24"X 54' RCP DRAIN-REMOVE
1352+36 24"X 25' CMP APPROACH PIPE RT.-REMOVE
1361+62 24"X 53' RCP DRAIN-REMOVE
1367+58 48"X 70' RCP DRAIN-REMOVE
TRANSFORMER STATION
P.I. 1356+00 2856.00
P.I. 1373+00 2850.00
800' V.C.
1000' V.C.
-2.111 %
-0.471 %
+1.700 %
PROFILE GRADE = FUTURE FINISHED GRADE
R.T.W.
2880
70
60
50
40
30
2820
1350
5
1360
5
1370
5
1380
MONTANA DEPARTMENT OF TRANSPORTATION
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	22



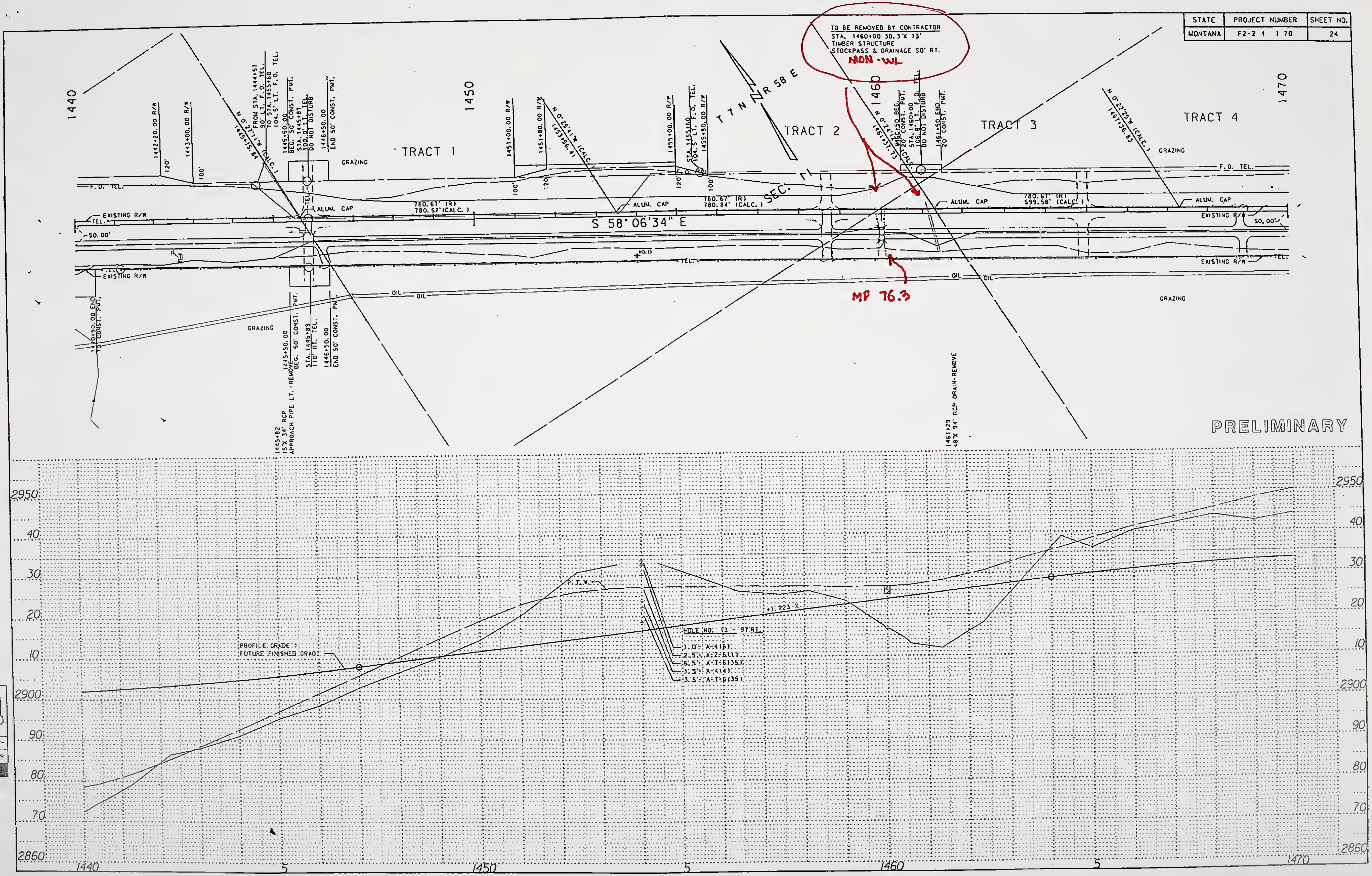
STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	23



MONTANA DEPARTMENT OF TRANSPORTATION

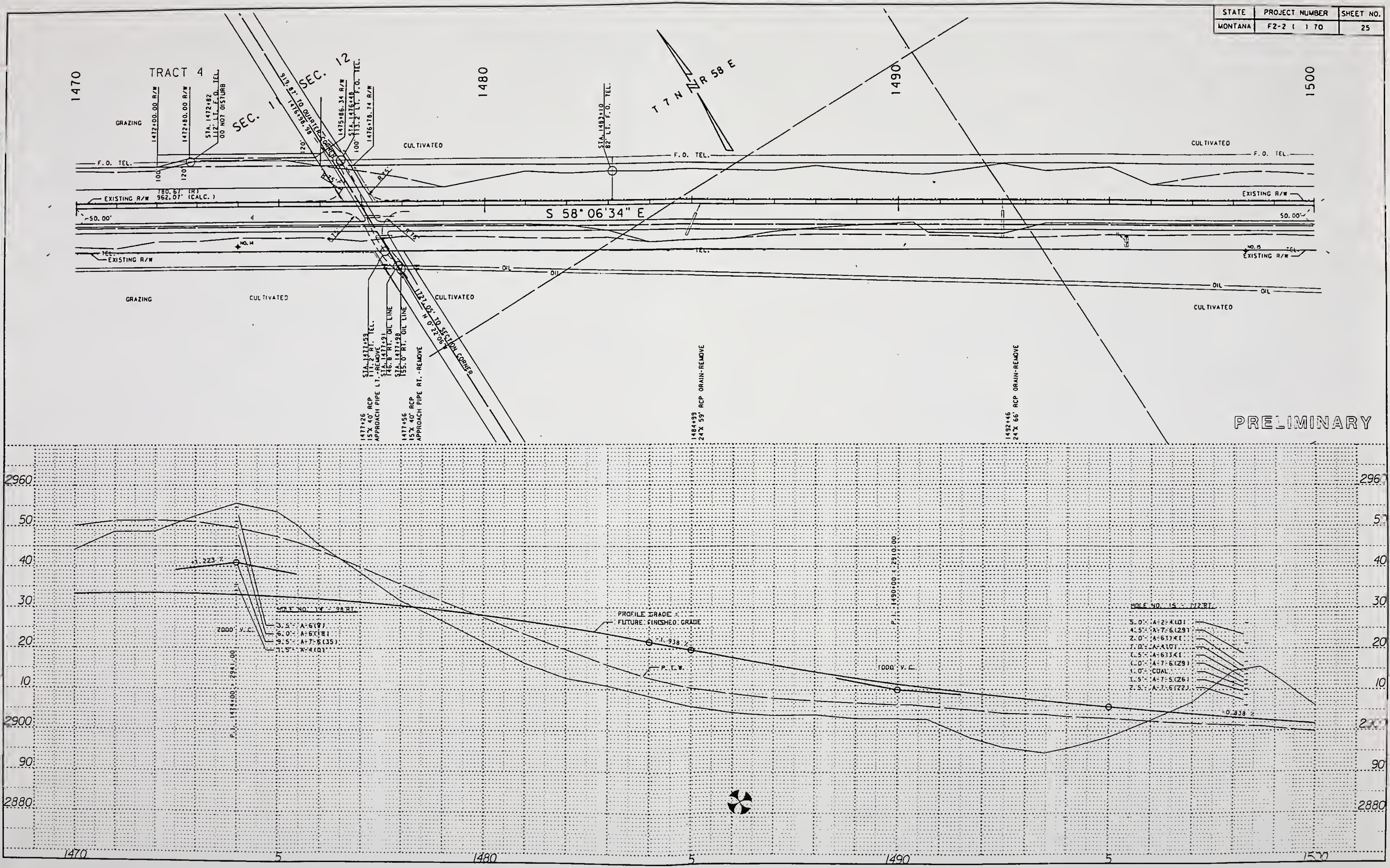
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	24


TO BE REMOVED BY CONTRACTOR
STA. 1460+00 30.3'X 13'
TIMBER STRUCTURE
STOCKPASS & DRAINAGE 50' RT.
MON - WL
MP 76.3
1440
1450
1460
1470
TRACT 1
TRACT 2
TRACT 3
TRACT 4
T 7 N R 58 E
SEC. 11
S 58° 06'34" E
GRAZING
F.O. TEL.
TEL.
OIL
EXISTING R/W
ALUM. CAP
50.00'
1442+20.00 R/W
1443+00.00 R/W
1445+75.84 N 0°21'11" W (CALC.)
FROM STA. 1444+57 TO STA. 1455+60 90' LT. F.O. TEL.
104.5' LT. F.O. TEL.
1445+50.00 BEG. 50' CONST. PMT.
STA. 1445+87 100.0' LT. TEL. DO NOT DISTURB
1446+50.00 END 50' CONST. PMT.
1451+00.00 R/W
1451+80.00 R/W
1453+56.41 N 0°25'41" W (CALC.)
1455+00.00 R/W
STA. 1455+60 104.5' LT. F.O. TEL.
1455+80.00 R/W
780.67' (R) 780.57' (CALC.)
780.67' (R) 780.84' (CALC.)
780.67' (R) 599.58' (CALC.)
1461+31.13 N 0°24' (CALC.)
1460+50 BEG. 20' CONST. PMT.
STA. 1460+00 106.8' LT. F.O. TEL. DO NOT DISTURB
1461+50 END 20' CONST. PMT.
1467+36.83 N 0°22'25" W (CALC.)
1440+50.00 END 70' CONST. PMT.
1445+50.00 BEG. 50' CONST. PMT.
STA. 1445+89 110' RT. TEL.
1446+50.00 END 50' CONST. PMT.
1445+82 15"X 34' RCP APPROACH PIPE LT.-REMOVE
1461+29 48"X 94' RCP DRAIN-REMOVE
120'
100'
PRELIMINARY
2950
40
30
20
10
2900
90
80
70
2860
PROFILE GRADE = FUTURE FINISHED GRADE
P.T.W.
+1.223 %
HOLE NO. C3 - 97' RT.
1.0' A-4(6)
2.5' A-2-6(1)
6.5' A-7-6(35)
1.5' A-4(4)
3.5' A-7-6(35)
5

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	25

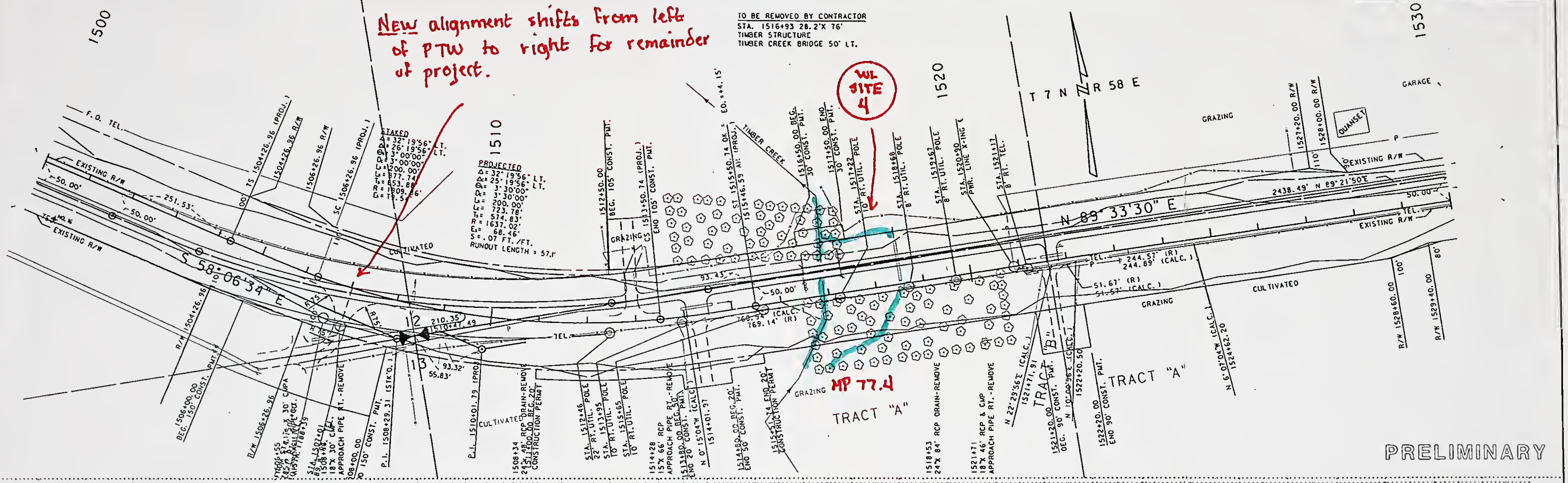
MONTANA DEPARTMENT OF TRANSPORTATION



PRELIMINARY

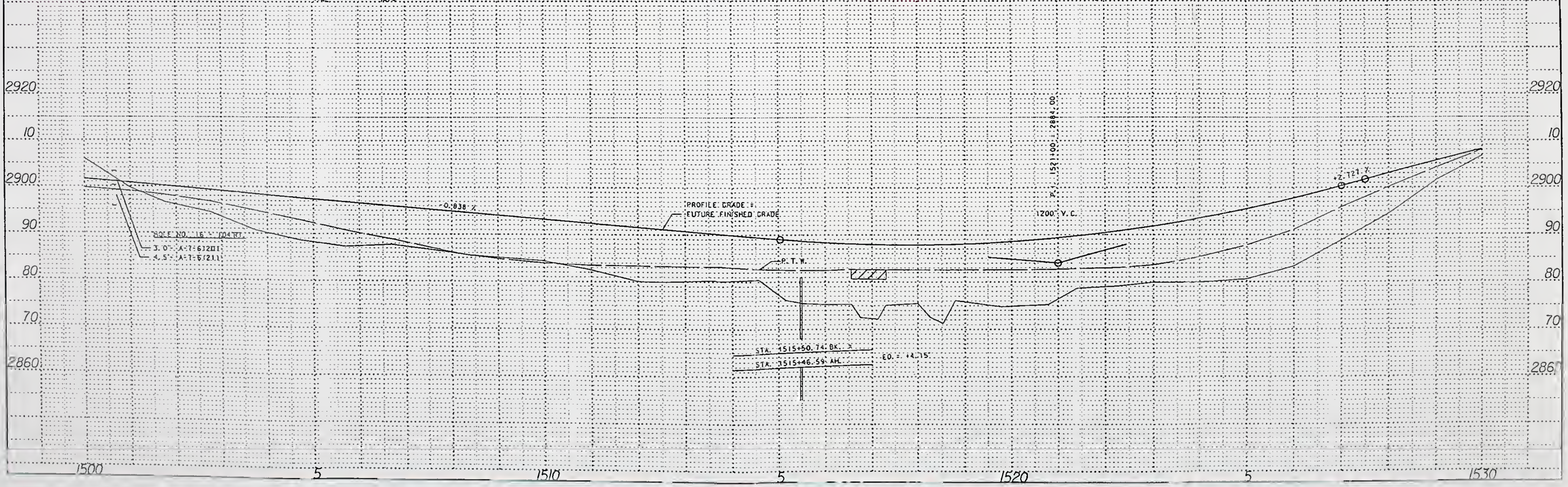
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	26

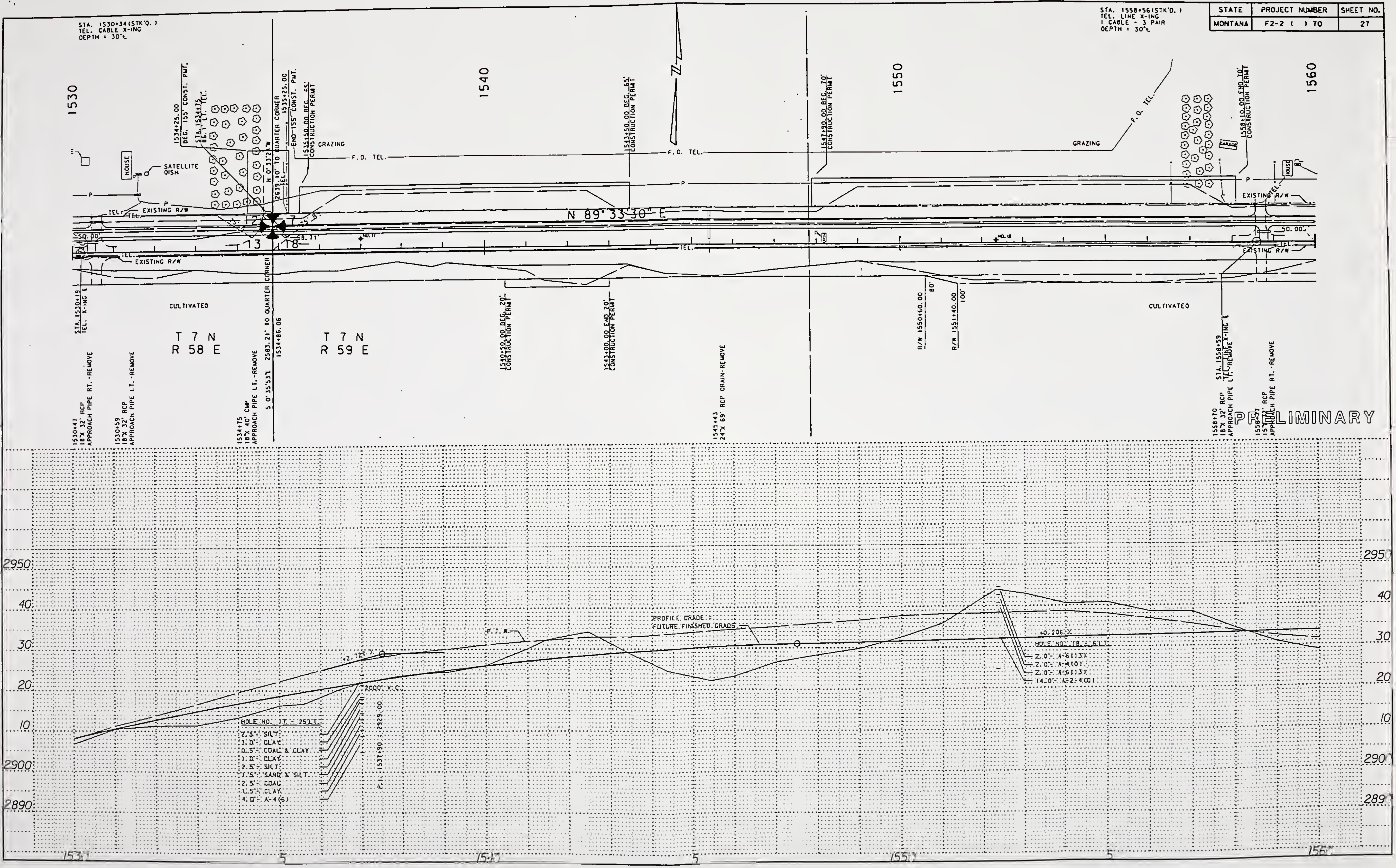


New alignment shifts from left of PTW to right for remainder of project.

PRELIMINARY

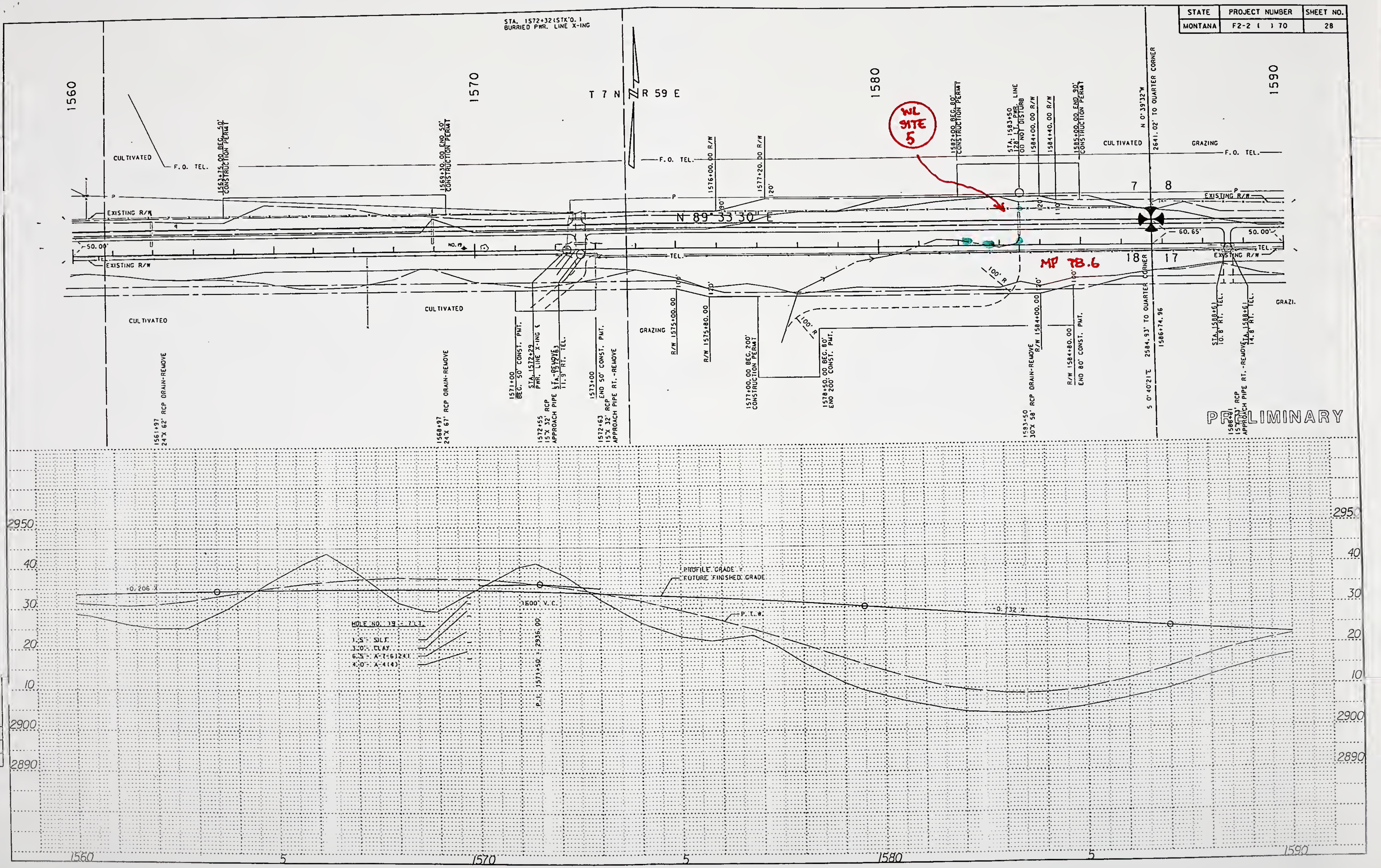


STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	27



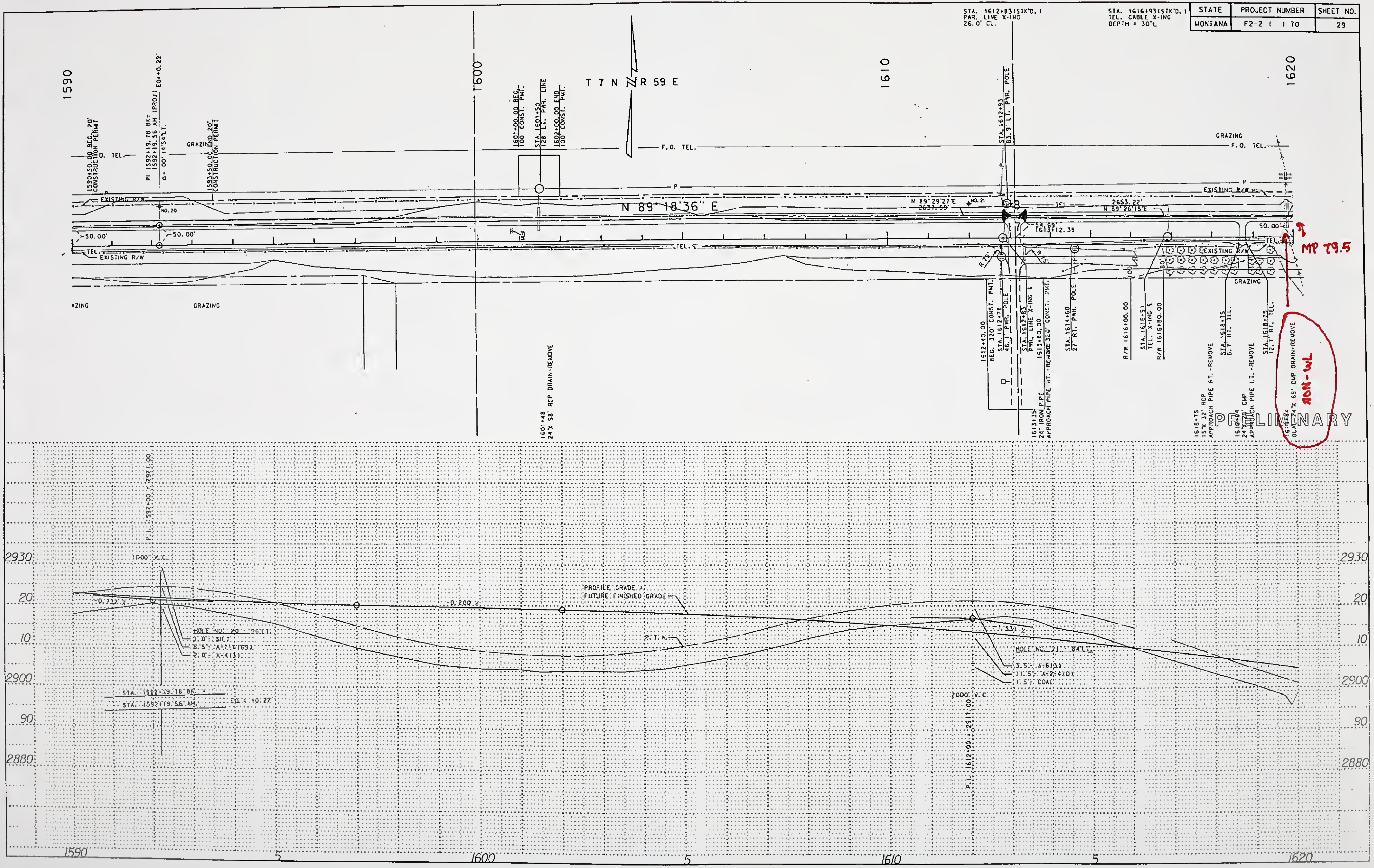
STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	28

MONTANA DEPARTMENT OF TRANSPORTATION



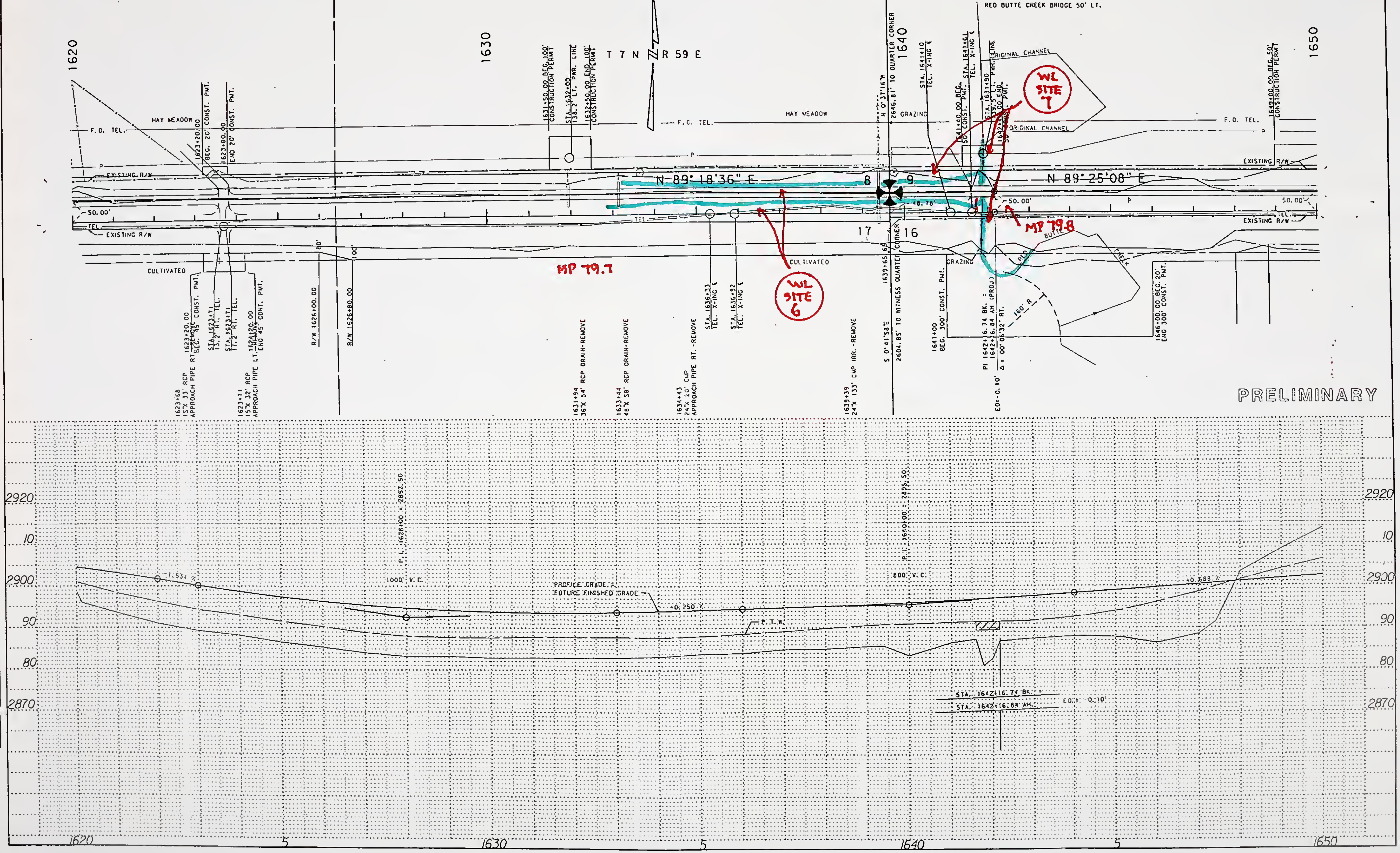
STA. 1572+32 (STK'O.)
BURRIED PWR. LINE X-ING
1560
1570
1580
1590
T 7 N
R 59 E
CULTIVATED
F.O. TEL.
1563+75.00 BEG. 50' CONSTRUCTION PERMIT
1569+30.00 END 50' CONSTRUCTION PERMIT
P
EXISTING R/W
50.00'
NO. 19
TEL.
CULTIVATED
CULTIVATED
1561+97 24"X 62' RCP DRAIN-REMOVE
1568+97 24"X 67' RCP DRAIN-REMOVE
1571+00 BEG. 50' CONST. PMT.
STA. 1572+29 PWR. LINE X-ING ℄
1572+55 15"X 32' RCP APPROACH PIPE
STA. 1572+63 11.9' RT. TEL.
REMOVE
1573+00 END 50' CONST. PMT.
1572+63 15"X 32' RCP APPROACH PIPE RT.-REMOVE
N 89°33'30" E
GRAZING
R/W 1575+00.00
R/W 1575+80.00
1576+00.00 R/W
1577+20.00 R/W
90'
120'
100'
120'
1577+00.00 BEG. 200' CONSTRUCTION PERMIT
1578+50.00 BEG. 80' END 200' CONST. PMT.
100' R
100' R
WL SITE 5
MP 78.6
1582+00 BEG. 80' CONSTRUCTION PERMIT
STA. 1583+50 128' LT. PWR. LINE DO NOT DISTURB
1584+00.00 R/W
1584+40.00 R/W
1585+00.00 END 80' CONSTRUCTION PERMIT
120'
110'
120'
100'
1583+50 30"X 58' RCP DRAIN-REMOVE
R/W 1584+00.00
R/W 1584+80.00 END 80' CONST. PMT.
CULTIVATED
GRAZING
N 0°39'32"W 2641.02' TO QUARTER CORNER
S 0°40'21"E 2584.93' TO QUARTER CORNER
1586+74.96
7
8
18
17
60.65'
50.00'
STA. 1588+61 10.8' RT. TEL.
STA. 1588+61 14.8' RT. TEL.
1588+61 15"X 33' RCP APPROACH PIPE RT.-REMOVE
GRAZI.
PRELIMINARY
2950
40
30
20
10
2900
2890
+0.206 %
HOLE NO. 19 - 7' LT.
1.5' - SILT
3.0' - CLAY
6.5' - A-7-6(24)
4.0' - A-4(4)
1600' V.C.
P.I. 1571+50 = 2936.00
PROFILE GRADE = FUTURE FINISHED GRADE
P.T.W.
-0.132 %
1560
5
1570
5
1580
5
1590
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	29


STA. 1612+83(STK'D.)
PWR. LINE X-ING
26.0' CL.
STA. 1616+93(STK'D.)
TEL. CABLE X-ING
DEPTH = 30"±
1590
1600
1610
1620
T 7 N R 59 E
1590+50.00 BEG. 20' CONSTRUCTION PERMIT
PI 1592+19.78 BK= 1592+19.56 AH (PROJ) EQ+0.22'
Δ= 00°14'54"LT.
1593+50.00 END 20' CONSTRUCTION PERMIT
1601+00.00 BEG. 100' CONST. PMT.
STA. 1601+50 128' LT. PWR. LINE
1602+00.00 END 100' CONST. PMT.
STA. 1612+93 83.9' LT. PWR. POLE
F.O. TEL.
GRAZING
EXISTING R/W
N 89°18'36" E
N 89°29'27"E 2637.59'
2653.22' N 89°26'15"E
NO. 20
NO. 21
50.00'
TEL.
54.69' 1613+12.39
1601+48 24"X 58' RCP DRAIN-REMOVE
1612+40.00 BEG. 320' CONST. PMT.
STA. 1612+78 46.1' PWR. POLE
STA. 1612+83 PWR. LINE X-ING ℄
1613+80.00 END 320' CONST. PMT.
1613+35 24" IRON PIPE APPROACH PIPE RT.-REMOVE
STA. 1614+60 27' RT. PWR. POLE
R/W 1616+00.00
STA. 1615+91 TEL. X-ING ℄
R/W 1616+80.00
1618+75 15"X 32' RCP APPROACH PIPE RT.-REMOVE
STA. 1618+75 8.7' RT. TEL.
1618+84 24"X 70' CMP APPROACH PIPE LT.-REMOVE
STA. 1618+75 12.7' RT. TEL.
1619+84 DUAL 24"X 69' CMP DRAIN-REMOVE
NON-WL
MP 79.5
PRELIMINARY
P.I. 1592+00 = 2921.00
1000' V.C.
-0.732 %
-0.200 %
PROFILE GRADE & FUTURE FINISHED GRADE
P.T.K.
HOLE NO. 20 - 96'LT.
1.0' - SILT
8.5' - A-7-6(9)
2.0' - A-4(1)
STA. 1592+19.78 BK.
STA. 1592+19.56 AH.
EQ = +0.22'
-1.53 %
HOLE NO. 21 - 84'LT.
3.5' - A-6(11)
11.5' - A-2-4(0)
1.5' - COAL
2000' V.C.
P.I. 1612+00 = 2911.00
2930
20
10
2900
90
2880
1590
5
1600
5
1610
5
1620
MONTANA DEPARTMENT OF TRANSPORTATION
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	30

MONTANA DEPARTMENT OF TRANSPORTATION

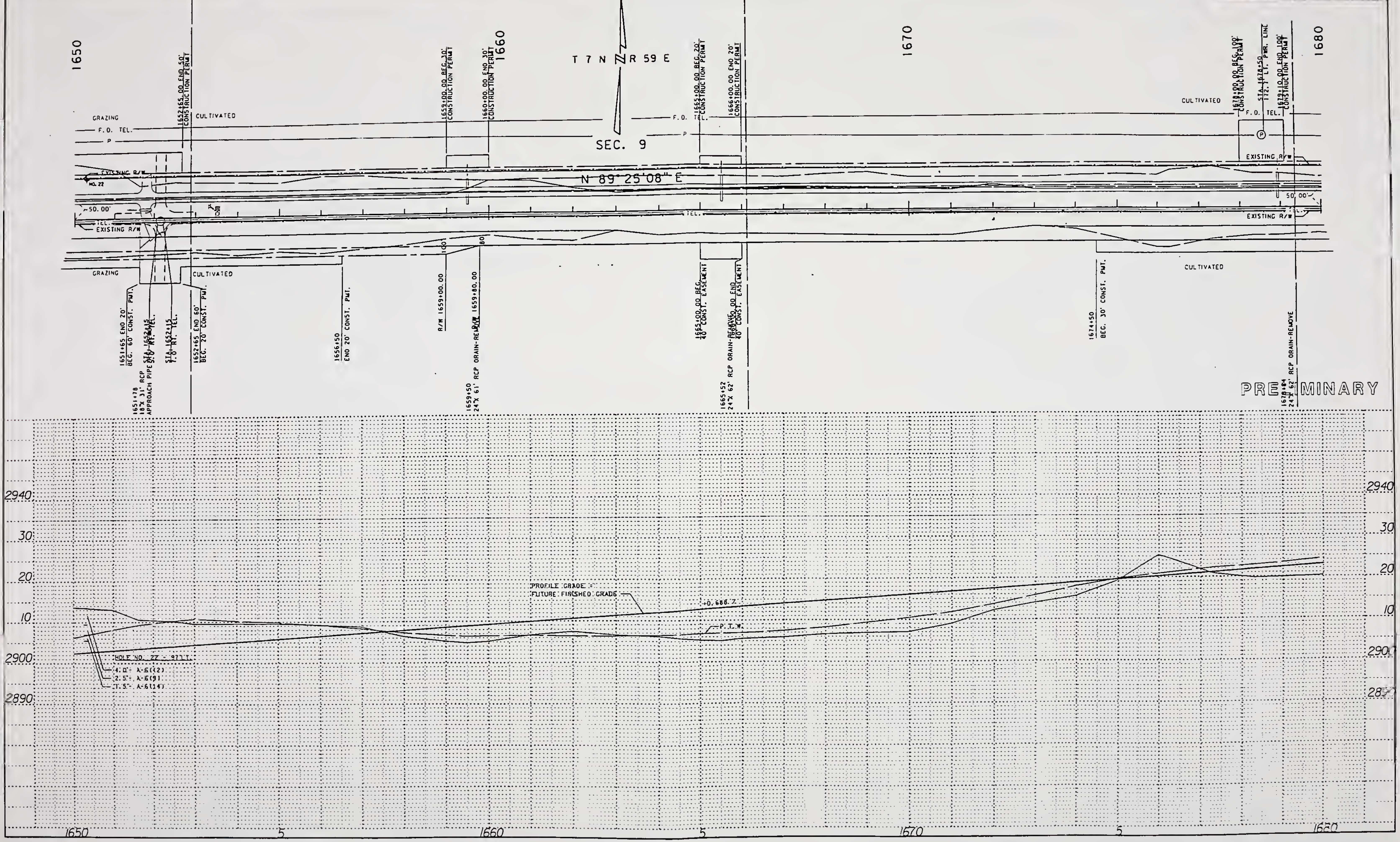

TO BE REMOVED BY CONTRACTOR
1641+87.5 28.3'X 57'
TIMBER STRUCTURE
RED BUTTE CREEK BRIDGE 50' LT.

1620
1630
1640
1650
T 7 N
R 59 E
F.O. TEL.
HAY MEADOW
P
EXISTING R/W
50.00'
TEL.
CULTIVATED
GRAZING
ORIGINAL CHANNEL
N 89° 18'36" E
N 89° 25'08" E
8
9
17
16
48.78'
RED BUTTE CREEK
160' R
1623+20.00 BEG. 20' CONST. PMT.
1623+80.00 END 20' CONST. PMT.
1623+68 15"X 33' RCP APPROACH PIPE RT.-REMOVE
1623+20.00 BEG. 45' CONST. PMT.
STA. 1623+71 13.2' RT. TEL.
STA. 1623+71 17.2' RT. TEL.
1623+71 15"X 32' RCP APPROACH PIPE LT.-REMOVE
1624+20.00 END 45' CONT. PMT.
80'
100'
R/W 1626+00.00
R/W 1626+80.00
1631+50.00 BEG. 100' CONSTRUCTION PERMIT
STA. 1632+00 138.2' LT. PWR. LINE
1632+50.00 END 100' CONSTRUCTION PERMIT
1631+94 36"X 54' RCP DRAIN-REMOVE
1633+44 48"X 58' RCP DRAIN-REMOVE
1634+43 24"X 20' CMP APPROACH PIPE RT.-REMOVE
STA. 1636+33 TEL. X-ING ℄
STA. 1636+92 TEL. X-ING ℄
1639+39 24"X 133' CMP IRR.-REMOVE
N 0°37'16"W 2646.81' TO QUARTER CORNER
1639+65.64
S 0°41'58"E 2604.85' TO WITNESS QUARTER CORNER
STA. 1641+10 TEL. X-ING ℄
1641+40.00 BEG. 50' CONST. PMT.
STA. 1641+61 TEL. X-ING ℄
STA. 1631+90 39.5' LT. PWR. LINE
1642+40.00 END 50' CONST. PMT.
1641+00 BEG. 300' CONST. PMT.
PI 1642+16.74 BK. = 1642+16.84 AH (PROJ)
Δ = 00°05'32" RT.
EO=-0.10'
1646+00.00 BEG. 20' CONST. PMT.
1646+00.00 END 300' CONST. PMT.
1649+00.00 BEG. 50' CONSTRUCTION PERMIT
WL SITE 6
WL SITE 7
MP 79.7
MP 79.8
2920
10
2900
90
80
2870
-1.534 %
P.I. 1628+00 = 2892.50
1000' V.C.
PROFILE GRADE = FUTURE FINISHED GRADE
+0.250 %
P.T.W.
P.I. 1640+00 = 2895.50
800' V.C.
+0.688 %
STA. 1642+16.74 BK. =
STA. 1642+16.84 AH.
EO = -0.10'
1620
5
1630
5
1640
5
1650

PRELIMINARY

MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	31

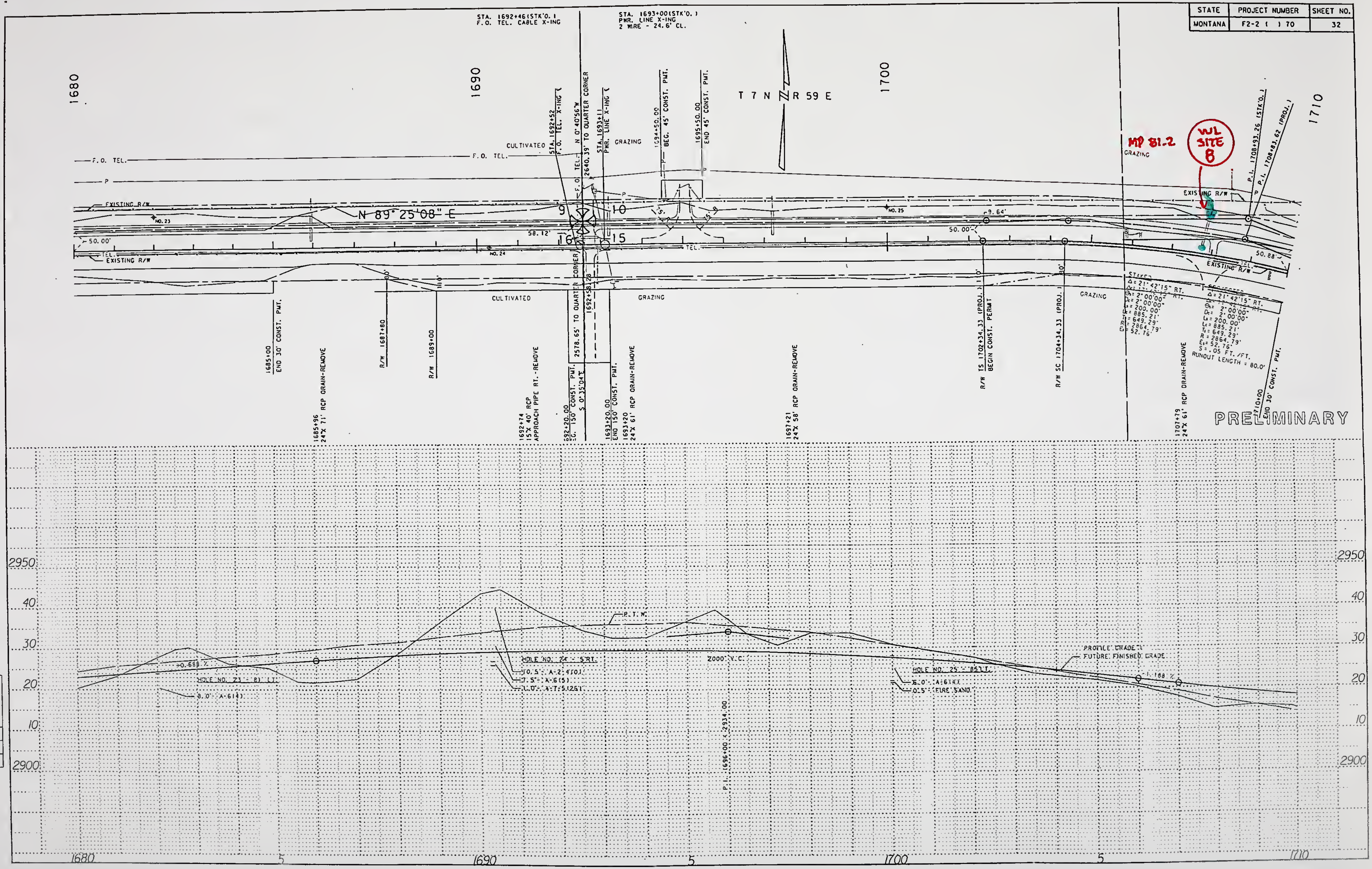

1650
1652+65.00 END 50' CONSTRUCTION PERMIT
1659+00.00 BEG. 30' CONSTRUCTION PERMIT
1660+00.00 END 30' CONSTRUCTION PERMIT
1660
T 7 N R 59 E
1665+00.00 BEG. 20' CONSTRUCTION PERMIT
1666+00.00 END 20' CONSTRUCTION PERMIT
1670
1678+00.00 BEG. 100' CONSTRUCTION PERMIT
STA. 1678+50 172.7' LT. PWR. LINE
1679+10.00 END 100' CONSTRUCTION PERMIT
1680
GRAZING
CULTIVATED
F.O. TEL.
P
SEC. 9
CULTIVATED
EXISTING R/W
NO. 22
N 89°25'08" E
50.00'
TEL.
EXISTING R/W
100
80
GRAZING
CULTIVATED
CULTIVATED
1651+65 END 20' BEG. 60' CONST. PMT.
1651+78 18"X 31' RCP APPROACH PIPE
STA. 1652+15 5.0' RT. TEL.
STA. 1652+15 F.O. RT. TEL.
1652+65 END 60' BEG. 20' CONST. PMT.
1656+50 END 20' CONST. PMT.
R/W 1659+00.00
R/W 1659+80.00
1659+50 24"X 61' RCP DRAIN-REMOVE
1665+00.00 BEG. 40' CONST. EASEMENT
1666+00.00 END 40' CONST. EASEMENT
1665+52 24"X 62' RCP DRAIN-REMOVE
1674+50 BEG. 30' CONST. PMT.
1678+84 24"X 62' RCP DRAIN-REMOVE
PRELIMINARY
2940
30
20
10
2900
2890
PROFILE GRADE = FUTURE FINISHED GRADE
+0.688 %
P.T.W.
HOLE NO. 22 - 97 LT.
4.0' - A-6(12)
2.5' - A-6(9)
1.5' - A-6(14)
1650
5
1660
5
1670
5
1680

MONTANA DEPARTMENT OF TRANSPORTATION

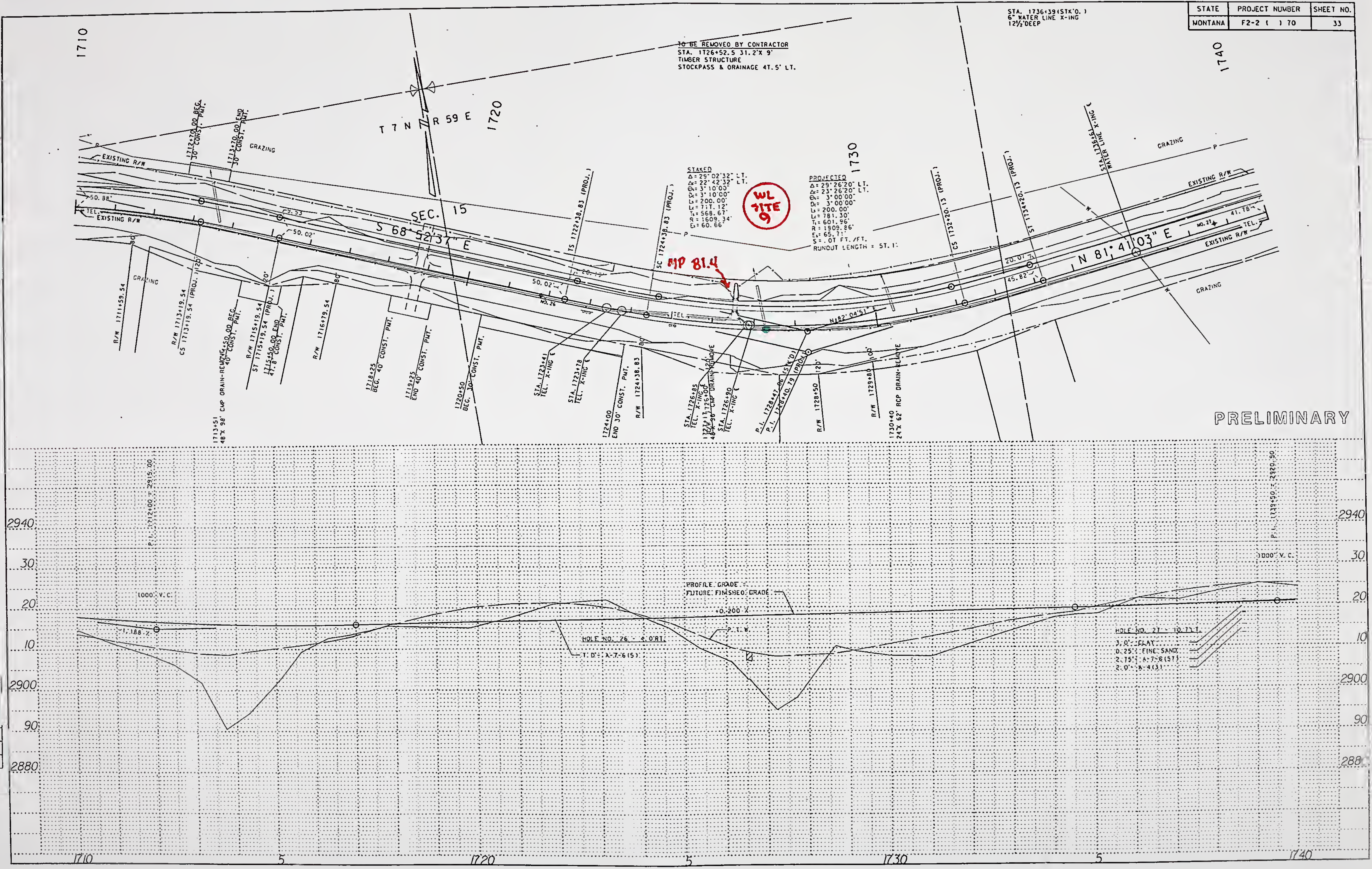
MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	32

MONTANA DEPARTMENT OF TRANSPORTATION



STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	33

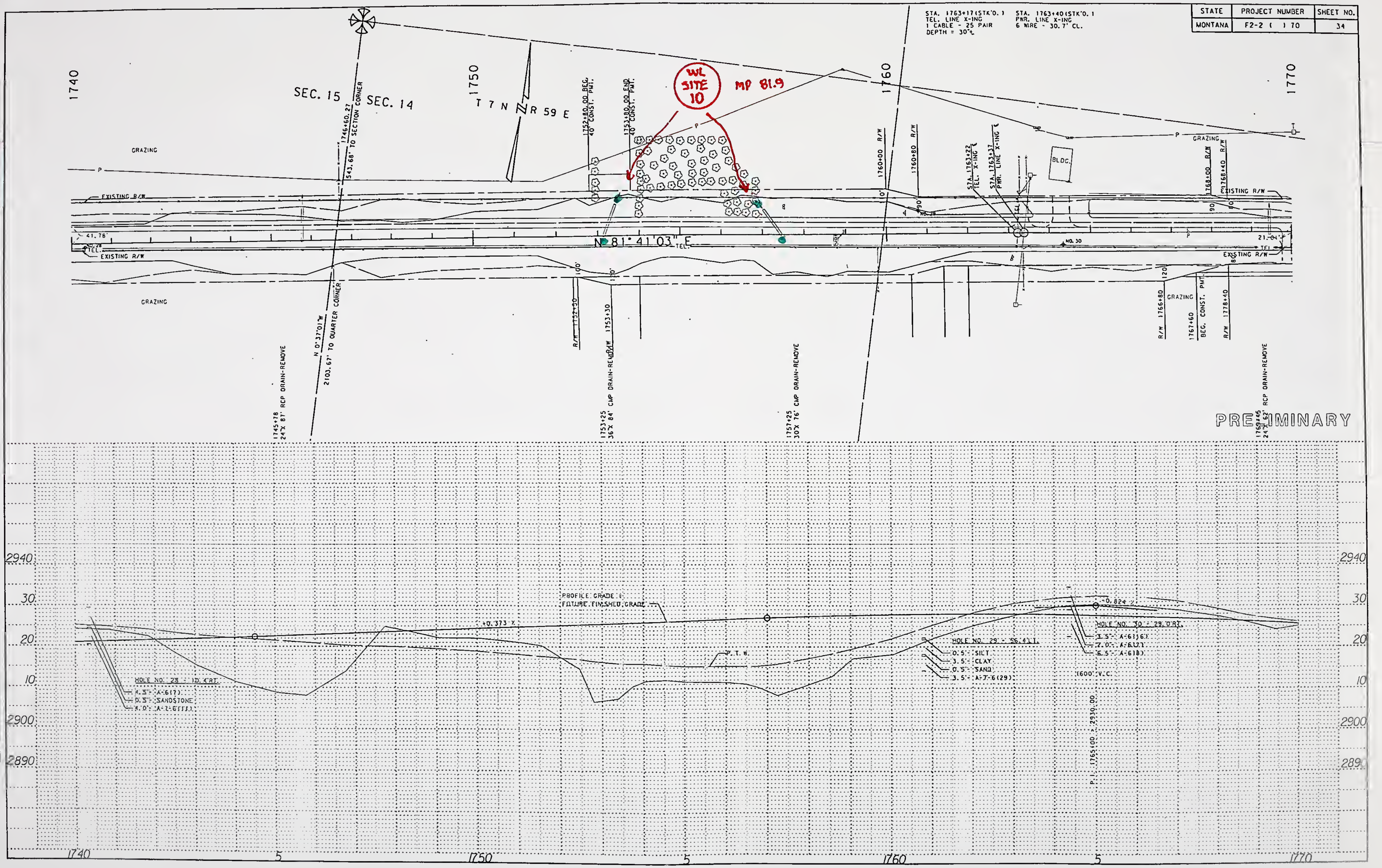


MONTANA DEPARTMENT OF TRANSPORTATION

MONTANA CADD

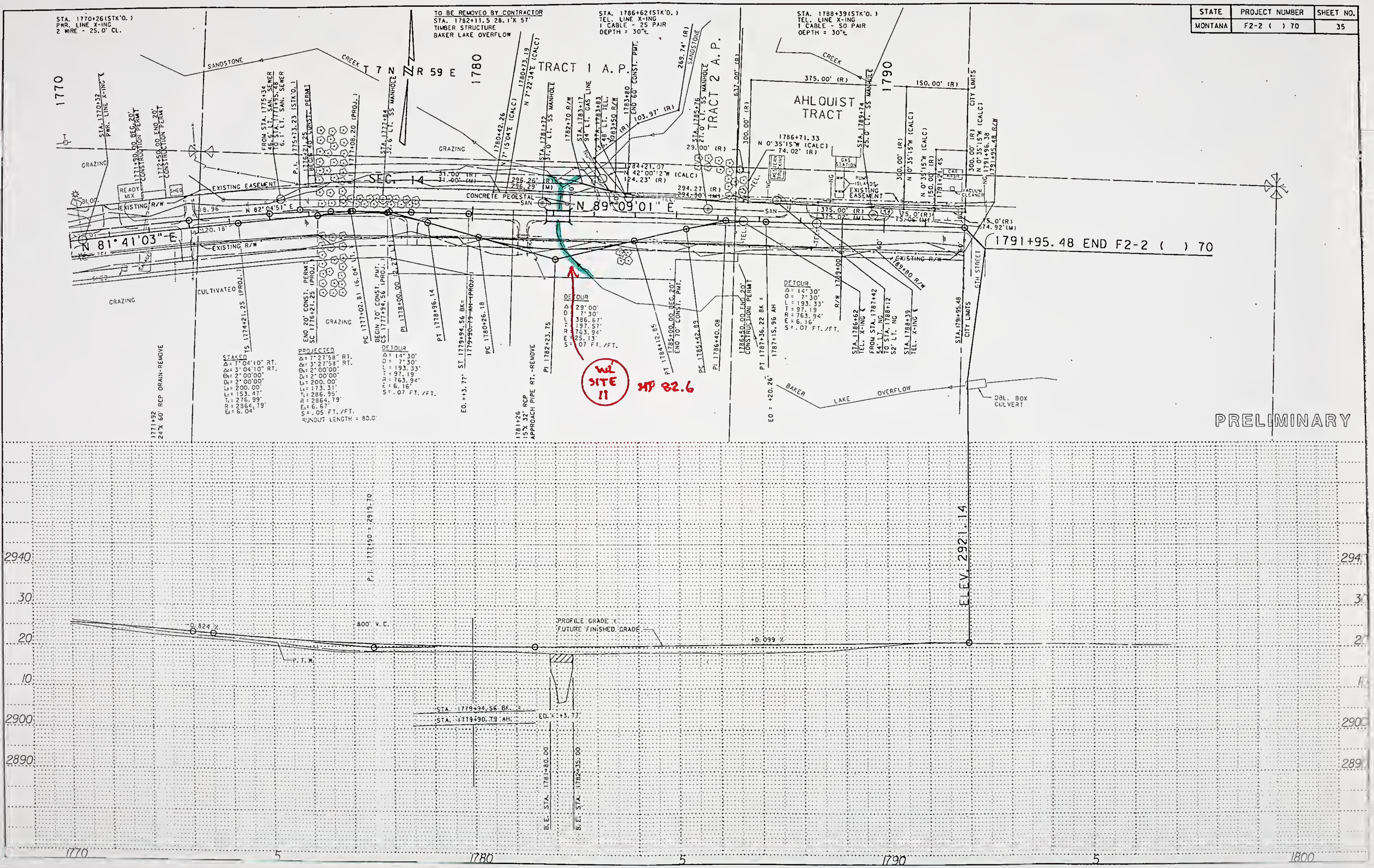
3	6	9
2	5	8
1	4	7

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	34



MONTANA DEPARTMENT OF TRANSPORTATION

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	F2-2 ( ) 70	35



STA. 1770+26 (STK'D.) PWR. LINE X-ING 2 WIRE - 25.0' CL.
TO BE REMOVED BY CONTRACTOR STA. 1782+11.5 28.1'X 57' TIMBER STRUCTURE BAKER LAKE OVERFLOW
STA. 1786+62 (STK'D.) TEL. LINE X-ING 1 CABLE - 25 PAIR DEPTH = 30'±
STA. 1788+39 (STK'D.) TEL. LINE X-ING 1 CABLE - 50 PAIR DEPTH = 30'±
1770
1780
1790
SANDSTONE
CREEK
T 7 N
R 59 E
TRACT 1 A.P.
TRACT 2 A.P.
AHLQUIST TRACT
SEC. 14
GRAZING
CULTIVATED
READY MIX
SHED
EXISTING EASEMENT
EXISTING R/W
N 81°41'03" E
N 82°04'51" E
N 89°09'01" E
CONCRETE PEDESTAL
GAS STATION
VACUUM CLEANER
CAR WASH
1791+95.48 END F2-2 ( ) 70
CITY LIMITS
6TH STREET
STA. 1791+95.48 CITY LIMITS
BAKER LAKE OVERFLOW
DBL. BOX CULVERT
1771+92 24"X 60' RCP DRAIN-REMOVE
1781+26 15"X 32' RCP APPROACH PIPE RT.-REMOVE
STAKED Δ=7°04'10" RT.
PROJECTED Δ=7°27'58" RT.
DETOUR Δ=14°30' D=7°30' L=193.33' T=97.19 R=763.94' E=6.16' S=.07 FT./FT.
DETOUR Δ=29°00' D=7°30' L=386.67' T=197.57' R=763.94' E=25.13' S=.07 FT./FT.
DETOUR Δ=14°30' D=7°30' L=193.33' T=97.19 R=763.94' E=6.16' S=.07 FT./FT.
WL SITE 11
HP 82.6
PRELIMINARY
2940
30
20
10
2900
2890
-0.824 %
800' V.C.
P.I. 1777+50 = 2919.70
PROFILE GRADE = FUTURE FINISHED GRADE
+0.099 %
ELEV. 2921.14
STA. 1779+94.56 BK.
STA. 1779+90.79 AH.
EQ. = +3.77'
B.E. STA. 1781+80.00
B.E. STA. 1782+35.00
1770
5
1780
5
1790
5
1800

MONTANA CADD

Attachment 1.3 - COE Routine Wetland Delineation Forms and MDT Wetland Site Evaluation Forms

MDT WETLAND SITE EVALUATION FORM

Project Name: Plevna - Baker Number STPP 2-2(4) 70 Control No. 1276

Evaluation Date: 24-25JAN 96 Evaluator(s): RS HARRIS Site Name(s): Non-riparian types

Site Location: MP 70.0, 74.7, 78.6, 79.7 to 79.8, mp 79.8, 82.6

Estimated Total Wetland Size: 0.15 hec. (0.42 ac.) Estimated Size Within ROW: 300' corridor delineation

Wetland Classification (from MDT Wetland Classification Scheme)

Water Regime (e.g., Permanently flooded)	Wetland Type (e.g., Marsh)	Dominant Species	Modifier (e.g., Impounded)	% of Wetland
Seasonally Flooded	bare substrate w/ vegetated fringes	prairie cordgrass sedges, hardstem.		48%
Temporarily Flooded	mostly emergent vegetation	prairie cordgrass eleocharis, hardstem-sedges, bulrush		52%

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Brief Descriptive Summary: see detailed field narratives

Functions and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

Size	Score
> 10 acres	–10
6 to 10 acres	–5
1 to 5 acres	–3
[✓ < 1 acre]	[✓ –1]

Calcul. Score –	Rating (circle)	Point Value – (circle)
[✓ 1 –]	[✓ Low]	[✓ –1]
3 –	Moderate	–3
5 –	High	–5
10 –	Except.	–10

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

# of Wetland Types (not including open water types)	(1 Multiply 1) Score	Score	Open Water
≥ 3 types	–5	2 –	Present
2 types	–3	[✓ 1 –]	[✓ Absent]
[✓ ≤ 1 type]	[✓ –1]		

Calculated Score –

Calcul. Score –	Rating (circle)	Point Value – (circle)
[✓ 1 –]	[✓ Low]	[✓ –1]
2-3 –	Moderate	–3
5-6 –	High	–5
10 –	Except.	–10

3. Food Chain Support (Function of habitat diversity (HD) and wetland size)

HD Rating (from #2 above)	(1 Multiply 1) Score	Score	Size
[✓ Low]	[✓ –1]	5 –	> 5 acres
Moderate	–2	3 –	1-5 acres
High	–3	[✓ 1 –]	< 1 acre
Exceptional	–4		

Calculated Score –

Calcul. Score –	Rating (circle)	Point Value – (circle)
[✓ 1]-2 –	[✓ Low]	[✓ –1]
3-9 –	Moderate	–3
10-15 –	High	–5
20 –	Except.	–10

4. Habitat for Federally-listed or Proposed Threatened or Endangered Species

Wetland Receives:	Score
Regular use by T&E species or falls within designated critical habitat	–10
Occasional T&E species use (e.g., infrequent, sporadic use)	–5
Incidental T&E species use (e.g., chance, inconsequential use)	[✓ –3]
No known or suspected T&E species use	–0

Calcul. Score –	Rating (circle)	Point Value – (circle)
0 –	None	–0
[✓ 3 –]	[✓ Moderate]	[✓ –3]
5 –	High	–5
10 –	Except.	–10

5. Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program

Wetland Provides:	Score
Breeding or other crucial habitat	–10
Habitat that is used regularly	–5
Habitat that is used occasionally (e.g., infrequent, sporadic use)	–3
Habitat that is used incidentally (e.g., chance, inconsequential use)	[✓ –1]
No known or suspected habitat	–0

Calcul. Score –	Rating (circle)	Point Value – (circle)
0 –	None	–0
[✓ 1 –]	[✓ Low]	[✓ –1]
3 –	Moderate	–3
5 –	High	–5
10 –	Except.	–10

6. General Wildlife & Fish Habitat (Non-T&E)

Criteria I (apply to each group)		M	Songbirds	Criteria II (apply to entire group)	Score			
Substantial or significant use	=S	M	Raptors	≥ 6 S's or ≥ 8 M's	=10			
Occasional or moderate use	=M	L	Waterfowl	3-5 S's or 6-7 M's	=5			
Little or no perceived use	=L	L	Marsh & Shorebirds	1-2 S's or 3-5 M's	[✓ =3]			
		M	Rodents & Insectivores	No S's and ≤ 2 M's	=1	Calcul.	Rating	Point Value
		M	Carnivores			Score =	(circle)	=(circle)
		L	Ungulates	Calculated Score = 3		1=	Low	=1
		L	Herptiles			[✓ 3=]	[✓ Moderate]	[✓ =3]
		L	Fish			5=	High	=5
		L	Invertebrates			10=	Except.	=10

7. Flood Control & Storage (Functions of floodwater proximity, wetland size, vegetative composition, water regime, and site morphology.)

For sites within a discernable floodplain (Based on proximity to floodwaters, FEMA maps, flood deposits, etc.):

(1 Multiply 1)

Wetland Size	Score	Score	Vegetative Composition	
> 5 acres	=5	3=	> 50% emergent or shrub or combination	
1-5 acres	=3	2=	10-50% emergent or shrub or combination	Calculated Score = 1
[✓ < 1 acre]	[✓ =1]	[✓ 1=]	< 10% emergent or shrub or combination	

For sites not within a discernable floodplain:

(1 Multiply 1)

Water Regime	Score	Score	Site Morphology	Calcul. Score =	Rating (circle)	Point Value =(circle)
				[✓ 0.25-1=]	[✓ Low]	[✓ =1]
Permanently flooded or intermittently exposed	=2	1=	Basin	2-6=	Moderate	=3
Semi-permanently or seasonally flooded	=1	0.5=	Channel	9-10=	High	=5
Saturated or temporarily flooded	=0.5			15=	Except.	=10

8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

Likelihood to Receive Sediment/Pollutants	Score	Score	Emergent Vegetative Component	Calcul.	Rating	Point Value
Substantial accumulations evident or likely	=2	5=	> 50% emergent	Score =	(circle)	=(circle)
Moderate accumulations evident or likely	=1	3=	10-50% emergent	[✓ .5-1.5=]	[✓ Low]	[✓ =1]
Accumulations not evident and unlikely	[✓ =0.5]	[✓ 1=]	< 10% emergent	2-3=	Moderate	=3
	Calculated Score =			5-10=	High	=5

9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake (subject to wave action), river, stream, or other defined drainage; if does not apply, Point Value is 0.)

Size of Rooted Vegetative Component	Score	Calcul. Score =	Rating (circle)	Point Value =(circle)
> 5 acres	=5	0=	None	=0
1-5 acres	=3	[✓ 1=]	[✓ Low]	[✓ =1]
[✓ < 1 acre]	[✓ =1]	3=	Moderate	=3
	Calculated Score = 1	5=	High	=5

10. Nutrient Cycling (Potential to accumulate, process, and export nutrients (expressed as organic matter).)

(1 Multiply 1)

Organic Matter Accumulation	Score	Score	Proximity to Other Aquatic Habitats	Calcul. Score =	Rating (circle)	Point Value =(circle)
Substantial accumulation evident	=3	3=	Adjacent or contiguous to other aquatic habitats	[✓ 1=]	[✓ Low]	[✓ =1]
Little to no accumulation evident	[✓ =1]	[✓ 1=]	Isolated basin	3=	Moderate	=3
	Calculated Score =			9=	High	=5

11. Groundwater Discharge/Recharge (Expressed as function of wetland size and water regime.)

(1 Multiply 1)

Wetland Size	Score	Score	Water Regime	Calcul.	Rating	Point Value
> 5 acres	=5	3=	Permanently flooded or intermittently exposed	Score =	(circle)	=(circle)
1-5 acres	=3	[✓ 2=]	Semi-permanently or seasonally flooded	[✓ 1-2=]	[✓ Low]	[✓ =1]
[✓ < 1 acre]	[✓ =1]	[✓ 1=]	Saturated or temporarily flooded	3-9=	Moderate	=3
	Calculated Score =			10-15=	High	=5

12. Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

Frequency of Occurrence in Montana	Score	Score	Replacement Potential	Calcul. Score =	Rating (circle)	Point Value =(circle)
Rare	=3	5=	Irreplaceable ecological functions	[✓ 1-2=]	[✓ Low]	[✓ =1]
Common	[✓ =2]	3=	Ecological functions replaceable with difficulty	3-6=	Moderate	=3
[✓ Abundant]	[✓ =1]	[✓ 1=]	Ecological functions readily replaceable	9-10=	High	=5
	Calculated Score = 1			15=	Except.	=10

13. Recreation/Education Potential

(1 Multiply 1)

Recreation Potential	Score	Score	Education Potential	Calcul. Score =	Rating (circle)	Point Value =(circle)
High	=3	5=	High			
Moderate	=2	[✓ 3=]	Moderate - possibly at Red Butte Crk.	1-2=	Low	[✓ =1]
Low	[✓ =1]	[✓ 1=]	Low	3-6=	Moderate	=3
	Calculated Score = 1			9-15=	High	=5

Function & Value Summary and Overall Wetland Rating

for Wetland Site(s): MP 70.0, 74.7, 78.6, 79.7 - 79.8, 79.8, 82.6

Sites 1,3,5-6, part of 7, and 11

Function & Value Parameters	Point Values	Ratings
1. Wetland Size	1	LOW
2. Habitat Diversity	1	LOW
3. Food Chain Support	1	LOW
4. T&E Species Habitat	3	MOD
5. MNHP Species Habitat	1	LOW
6. General Fish & Wildlife Habitat	3	MOD
7. Flood Control & Storage	1	LOW
8. Sediment Filtration	1	LOW
9. Erosion Control	1	LOW
10. Nutrient Cycling	1	LOW
11. Groundwater Discharge/Recharge	1	LOW
12. Uniqueness	1	LOW
13. Recreation/Education Potential	1	LOW
TOTAL POINT VALUE	17	

Overall Wetland Rating (Circle appropriate class based on the criteria outlined below):

Class I   Class II   Class III   Class IV

Class I Wetland - Must satisfy one of the following criteria:

- Total Point Value of 65 or more; or
- "Exceptional" ratings for T&E Species Habitat or Flood Control & Storage or Uniqueness.

Class II Wetland - Does not satisfy criteria for Class I and:

- Total Point Value of 40 - 64; or
- "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- "High" ratings for Food Chain Support or Uniqueness.

Class III Wetland - Does not satisfy criteria for Class I, Class II, or Class IV and:

- Total Point Value of 26 - 39.

[✓ Class IV Wetland] - Does not satisfy criteria for Class I, Class II, or Class III and:

- Total Point Value less than 26; and
- "Low" ratings for Wetland Size and Habitat Diversity.

[illegible]

(adapted from Windell et al.[1986] and Cowardin et al.[1979])

Water Regime (Cowardin et al. 1979)	Vegetation Type	Substrate	Wetland Type	Modifiers (Cowardin et al. 1979)
• Permanently flooded • Intermittently exposed • Semi-permanently flooded • Seasonally flooded • Saturated • Temporarily flooded	Rooted floating, floating-leaved, or submergent	Water, mineral, or organic	Vegetated open water	• Excavated ditch • Excavated basin • Impounded • Diked • Farmed • Grazed • Partly Drained • Riparian
	Emergent (erect, rooted, herbaceous hydrophytes [includes mosses and lichens])	Organic (peat, muck)	Fen (typically "peatland" dominated by sedges and grasses)	
			Bog (typically "peatland" dominated by sphagnum mosses)	
			Marsh (substrate can be "muck" or mineral; not typically dominated by sedges and grasses)	
		Mineral	Wet Meadow (dominated by sedges and grasses; rarely floods)	
			Marsh (substrate can be "muck" or mineral; not typically dominated by sedges and grasses)	
	Shrub (woody vegetation less than 20 feet tall)	Organic (peat, muck)	Carr (shrub-dominated fen)	
			Shrub-bog (shrub-dominated bog)	
		Mineral	Shrub	
	Forested (woody vegetation greater than 20 feet tall)	Organic or Mineral	Coniferous Forested	
			Deciduous Forested	
	Unvegetated	Mineral or Water	Open Water	
			Bare Substrate	

Permanently flooded: Water covers land surface throughout the year in all years.
Intermittently exposed: Surface water present throughout the year except during years of extreme drought.
Semipermanently flooded: Surface water persists throughout growing season in most years.
Seasonally flooded: Surface water present for extended periods, especially early in the growing season, but usually absent by end of season.
Saturated: Substrate saturated to surface during growing season, but surface water seldom present.
Temporarily flooded: Surface water present for brief periods during growing season, but water table well below surface most of the year.

Excavated ditch or basin: Lies within basin or channel excavated by man.
Impounded: Created or modified by barrier or dam which purposefully or unintentionally obstructs water outflow.
Diked: Created or modified by man-made barrier or dike designed to obstruct the inflow of water.
Farmed: Soil surface has been mechanically or physically altered for crop production, but hydrophytes will reestablish if farming discontinued.
Grazed: Vegetation grazed by domestic stock.
Partly Drained: Water level has been artificially lowered, but soil moisture sufficient to support hydrophytes.
Riparian: Of, on, or pertaining to the bank of a natural watercourse.

PROJECT NAME Plevna - Baker

DATE 24-25 JAN 96

WETLAND SITE # 1

STATION (S) 1131 - 1132

MILEPOST 70.0 Begin Projects - culverts

APPROXIMATE ACREAGE 825 □' within 100 ft. corridor (30 m.)

ACREAGE WITHIN ROW N/A (No Alignment shift)

HYDROLOGIC TYPES	II A	AREA	100%	ACREAGE	0.019 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - A small depression of wetland emergent vegetation beginning at the two large reinforced concrete pipes passing under the highway. Intermittent flows through the 2 ft. and 4 ft. diameter structures have developed roughly 600 sq.ft of wetland on the north side of road, and another 200 sq.ft on the south side. Northside WL is comprised of spikerushes and prairie cordgrass w/ a 25 sq.ft. clump of hardstem bulrush. This portion lies between the culverts and the large drain structure over which the railway crosses. Flow is from north to south.

A small, iced-over pool exists at the culverts downstream end (south). Pool is likely bare substrate (due to high-water hydraulic?) and similar to those of many culverts within the project. It is lined with a narrow 1 ft. fringe of prairie cordgrass for roughly 200 sq.ft. of WL.

There are no large riparian trees or shrubs, ground cover is quite open w/ wheatgrasses, smooth brome, etc. Small amounts of snowberry, big-leafed sage, and one red-osier dogwood plant are present as well. Nature of WL cover provides very little function and value which could be enhanced with elevation of culvert downstream of the railway bridge - ?. possible mitigation area? not too immediate to highway if needing only a few-tenths of an acre. This site is near the project beginning and am uncertain of it actual involvement - there may be no impacts.

Soils unobtainable due to frozen ground. Fallon County Soils Survey map lists no map unit name for this site that is adjacent to Sandstone Creek.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

- A. Floating
- B. Rooted Submerged
- C. Rooted Floating-leaved
- D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions

# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna- Baker

WETLAND SITE # 1

DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
WETLAND	Spartina pectinata	prairie cordgrass	grass	OBL
	Eleocharis (sp.)	spikerush (sp.)	grass	OBL likely
	Rumex crispus	curly 'dock'	forb	FACW
	Scirpus acutus	hardstem bulrush	forb	OBL
UPLAND	Agropyron sp.	wheatgrass (sp.)	grass	FACU likely
	Bromus inermis	smooth brome	grass	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU likely
	Symphoricarpos occidentalis	snowberry (western)	shrub	FACU
	Artemisia tridentata	big-leafed sage	shrub	UPL

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna-Baker WL site 1
[✓ Applicant]/Owner: MDT
Investigator: RS Harris

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.) see reverse

Community ID: N/A
Transect ID: "
Plot ID: "

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Eleocharis sp.	G	OBL	10.		
3. Scirpus acutus	F	OBL	11.		
4. Rumex crispus	F	FACW	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ______

Remarks: Small representations primarily of these four species. No large riparian shrubs or saplings.

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- * X Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0" near culvert (in.)

Depth to Free Water in Pit: Unk. (in.)

Depth to Saturated Soil: Unk (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated – near upstream of culverts
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Ground Frozen – no pits dug. * Soil mapping for Fallon County also available. Flows to WL vegetation appear to come from high water events in Sandstone Creek.

SOILS

Map Unit Name (Series and Phase): no map unit name for immediate area as supplied by NRCS

Drainage Class: unk.

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): —

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

soils unsampled – though this WL area is seasonally inundated by Sandstone Creek.

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Ground frozen at time of survey.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? likely [✓ Yes] No

Is this Sampling Point Within a Wetland? likely [✓ Yes] No (Circle)

Remarks: Former highway modified area's hydrology in the early 1930's by bisecting this once-natural drainage. In spite of no definitive soils info, I suspect this to be an ephemeral wetland of little function and value. Further limited by its small size of less than 0.02 acre.

PROJECT NAME Plevna-Baker DATE 24-25 JAN 96

WETLAND SITE # 2 Sandstone Creek
STATION (S) 1166-1171
MILEPOST 70.8

APPROXIMATE ACREAGE 7000□' within 300' corridor (91.5 m.) 0.06 hec. (0.16 ac)
ACREAGE WITHIN ROW N/A (Alignment shifts north)

HYDROLOGIC TYPES III A/B AREA ______ ACREAGE 0.16 ac.
______ AREA ______ ACREAGE ______
______ AREA ______ ACREAGE ______

NARRATIVE - Site contains the active channel of Sandstone Creek w/ narrow fringes of hydrophytic species such as prairie cordgrass, curly dock, and a few plants of red-osier dogwood. Banks are very steep limiting outlying saturation. Channel was iced-over and snow covered at time of survey but is surely bare substrate as debris was observed in shrubs some 6 ft. above the present level. Appears that high levels of flow occur here seasonally.

WL channel appears about 10 ft. wide for its 700 ft. length within the delineated corridor. Area suggests limited wildlife values although it was the only one to reveal nests of cliff swallows (about 20 nests under bridge) and the siting of several wild turkeys.

These areas are riparian covered with boxelder predominating (to 20' tall). Rose, snowberry, mix with weedy species and upland grasses for adjacent areas. WL is confined to immediate channel.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker

WETLAND SITE # 2

DATAPOINT # N/A

AND

GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
Spartina pectinata	prairie cord grass	grass	OBL
Salix exigua	streambank willow	shrub	OBL
Rumex crispus	curly dock	forb	FACW
Cornus stolonifera	red-osier dogwood	shrub	FACW

AND

GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
Acer negundo	boxelder tree	sapl. tree	FAC +
Fraxinus pennsylvanica	green ash	sapl.	FAC
Rosa (sp.)	rose (sp.)	shrub	FAC UPL
Symphoricarpos occidentalis	snowberry	shrub	UPL
Agropyron (sp.)	wheatgrass sp.	grasses	UPL
Brassica (sp.)	mustard sp.	forb	UPL
Prunus virginiana	chokecherry	shrub	FACU
Agropyron cristatum	crested wheatgrass	grass	FACU likely

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna - Baker WL Site 2
[✓ Applicant]/Owner: MDT
Investigator: R.S. HARRIS

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? [✓ Yes] No
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: "
Plot ID: "

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Rumex crispus	F	FACW	10.		
3. Salix exigua	S	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: WL species confined to the steep, narrow banks of Sandstone Creek.

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations: channel iced over at time of survey

Depth of Surface Water: unk. (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Hydrology of site is that of the creek, proper. Very incised with channel over 20 ft. in depth. Fairly uniform widths with little expansion in area of corridor delineation.

SOILS

Map Unit Name (Series and Phase): Havre-Harlem complex 0-2 percent

Drainage Class: poorly drained or ponded

Taxonomy (Subgroup): unavail.

Field Observations Confirm Mapped Type? Yes [✓ No]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

channel inundated and frozen at time of survey - same for narrow WL fringes.

Hydric Soil Indicators:

☐ Histosol
☐ Histic Epipedon
☐ Sulfidic Odor
☐ Aquic Moisture Regime
☐ Reducing Conditions
☐ Gleyed or Low-Chroma Colors
☐ Concretions
☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils
☒ Listed on Local Hydric Soils List
☐ Listed on National Hydric Soils List
☐ Other (Explain in Remarks)

Remarks: Listed as map symbol 256A - a local hydric soil within Fallon County, MT.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? [✓ Yes] No

Is this Sampling Point Within a Wetland? (Circle) [✓ Yes] No

Remarks:

Approved by HQUSACE 3/92

PROJECT NAME Plevna-Baker DATE 24-25 JAN 96

WETLAND SITE # 3
STATION (S) 1374
MILEPOST 74.7 Drainage

APPROXIMATE ACREAGE 5050 □' within 300 ft. corridor (91.5 m.)
ACREAGE WITHIN ROW N/A (Alignment shifts north)

HYDROLOGIC TYPES	II A	AREA	100%	ACREAGE	0.12 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - A bridged drainage that possesses small, intermittent wetlands both immediately north and south of bridge. Beneath bridge is bare substrate heavily impacted by cows seeking shade – no WLs' beneath bridge. South of bridge is a 450 sq. ft patch of unidentified Carex (grazed heavily) with an adjacent swath (600 sq.ft) of prairie cordgrass (15'x 30' and 20'x 30', respectively).

Extending north from the bridge is a similar stringer of sedges & prairie cordgrass some 20 ft. in width and extending beyond the delineated corridor (20' x 200'). This area also contains small representations of Elocharis (spikerush) and what I believe to be a smartweed species - though its difficult to tell. most plants heavily grazed. WLs exhibit little to no function and value.

Upland species are some dry site grasses with scattered big-leafed sage more distant. No shrub communities in immediate area or riparian.

Soil Map unit name is (75C) Archin-Absher Complex, 02 to 08 percent for immediate area, with more hydric soils likely in area of sedges. Flows are from south to north expectedly and are very intermittent in nature according to vegetation. Little cover for wildlife.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker
WETLAND SITE # 3
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
LAND	Carex (sp.) grazed off	sedge (sp.)	Grass	FACW to OBL like
	Spartina pectinata	prairie cordgrass	grass	OBL
	Eleocharis (sp.)	spikerush (sp.)	grass	OBL likely
	Polygonum (sp.)	smartweed (sp.)	forb	FACW likely
ND	Agropyron cristatum	crested wheatgrass	grass	FACU likely
	Bromus inermis	smooth brome	grass	UPL
	Artemesia (sp.)	sage brush (sp.)	shrub	UPL
	Agropyron (sp.)	wheatgrass (sp.)	grasses	UPL
	Brassica (sp.)	mustard (sp.)	Forb	UPL

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pleuna - Baker WL site 3
[✓ Applicant]/Owner: MDT
Investigator: R.S. HARRIS

Date: 24-25 JAN 96
County: FALLON
State: MT.

Do Normal Circumstances exist on the site? [✓ Yes] No
Is the site significantly disturbed (Atypical Situation)? grazed → [✓ Yes] [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Carex sp.	G	FACW/OBL	10.		
3. Eleocharis	G	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Limited species and heavily grazed. These communities persist in the lowest of drainage depressions.

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
  ☐ Stream, Lake, or Tide Gauge
  ☒ Aerial Photographs
  ☐ Other
☐ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0" (in.)

Depth to Free Water in Pit: unk. (in.)

Depth to Saturated Soil: UNK (in.)

Wetland Hydrology Indicators:
Primary Indicators:
  ☐ Inundated
  ☐ Saturated in Upper 12 Inches
  ☐ Water Marks
  ☐ Drift Lines
  ☐ Sediment Deposits
  ☒ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
  ☐ Oxidized Root Channels in Upper 12 Inches
  ☐ Water-Stained Leaves
  ☐ Local Soil Survey Data
  ☐ FAC-Neutral Test
  ☐ Other (Explain in Remarks)

Remarks: An historic drainage according to the aerial, if small.

SOILS

Map Unit Name
(Series and Phase): Archin -Absher Complex , 02 to 08%

Drainage Class: unk.

Taxonomy (Subgroup): ___

Field Observations
Confirm Mapped Type? Yes [✓ No]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		Soils	information	unobtainable	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors

___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Map unit name is for surrounding area, and is not hydric. Areas of channel most frequently saturated are likely hydric, though I cant prove this at this time (ground Frozen).

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? likely → [✓ Yes] No

(Circle)
Is this Sampling Point Within a Wetland? likely → [✓ Yes] No

Remarks: Though wetlands are likely, they provide little to no Function or value. Soil stabilization is probably their main contribution.

Approved by HQUSACE 3/92

PROJECT NAME Plevna - Baker DATE 24-25 JAN 96

WETLAND SITE # 4 Timber Creek
STATION (S) 1516 - 1519
MILEPOST 77.4

APPROXIMATE ACREAGE 6350 □' within 300 ft. corridor (91.5 m.) 0.06 hec. (0.14 ac
ACREAGE WITHIN ROW N/A (Alignment shifts south)

HYDROLOGIC TYPES	III A/B	AREA		ACREAGE	0.14 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - This site involves the main creek and a 2 ft. cement culvert some one station to the east. South of the main bridge, the WL channel is approx. 10 ft. wide and commonly scoured by high water. WL vegetation here is generally narrow fringes of prairie cordgrass. North of the bridge shows disturbance of channel, with drift marks, debris high in willows, and some uprooting of willows in worst areas of scouring. Streambank willows were more common north of the bridge as was reed canary grass and curly dock. This channel north of the bridge is wider at 20 ft. (20 x 100') and possesses some large driftwood deposits, and heavy scouring.

The east culvert transfers an abraided upstream channel beneath the road which flows for approx. 150 ft before reconnecting with the main. Averaging 5 ft. in width at channel w/ a 20' x 20' iced-over pool at culvert's downstream end, this site affords another 2000 sq ft plus, of low quality wetland. The area's value as riparian cover is another matter, and is quite good. Tracks of ungulates and various upland birds were obvious in the thin snow cover. Alignment shift south will remove some useful cover for these species, and more importantly, for songbirds. Upland cover consists of a mosaic of mature, deciduous trees and patches of snowberry, rose, and dry site grasses.

This area will sustain a significant portion of project-related resource impacts with the southern shift in alignment into better cover. It is at Timber Crk. that the alignments shifts from north to south, for the remainder of the project.

Note: WL channel south of culvert is approx. 6' for 200' to corridor boundary, and runs through riparian canopy as well.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Pleuna-Baker
WETLAND SITE # 4
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
LAND	Spartina pectinata	prairie cordgrass	grass	OBL
	Salix exiqua	streambank willow	shrub	OBL
	Rumex crispus	curly dock	forb	FACW
	Phalaris arundinacea	reed canary grass	grass	FACW
	Polygonum (sp.)	smartweed sp.	forb	FACW likely
AND	Fraxinus pennsylvanica	green ash	tree	FAC
	Prunus virginiana	chokecherry	shrub	FACU
	Rosa (sp.)	rose (sp.)	shrub	FACU
	Symphoricarpos occidentalis	western snowberry	shrub	UPL
	Agropyron (sp.)	wheatgrasses (sp.)	grass	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU likely
	Brassica (sp.)	mustard (sp.)	forb	UPL
	Xanthium strumarium	common cocklebur	forb	FAC
	Bromus inermis	smooth brome	grass	UPL
	Grindelia squarrosa	curly-cup gumweed	forb	FACU

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna - Baker WL # 4
[✓ Applicant]/Owner: MDT
Investigator: R.S. HARRIS

Date: 24-25 JAN 96
County: Fallon
State: MT

Do Normal Circumstances exist on the site? [✓ Yes] No
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Rumex crispus	F	FACW	10.		
3. Salix exigua	S	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: WL vegetation occurs mostly along fringes of channels where most scoured. Elsewhere is predominantly wet-site grasses in low drainage depressions.

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations: Ground Frozen - main channel is dry.

Depth of Surface Water: 0" (in.)

Depth to Free Water in Pit: UNK. (in.)

Depth to Saturated Soil: unk. (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- X Water Marks
- X Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: historic drainage

SOILS

Map Unit Name is unlabeled - but is probably the Havre-Harlem complex, 0 to 2 percent
(Series and Phase): found along Sandstone Crk.

Drainage Class: poorly drained

Field Observations
Confirm Mapped Type? Yes [✓ No]

Taxonomy (Subgroup): UNK.

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		no soil samples taken			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Ground frozen, making samples impossible.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? likely → [✓ Yes] No

(Circle)
Is this Sampling Point Within a Wetland? [✓ Yes] No
likely ↗

Remarks: mostly a riparian area, with sporadic WL fringe. High water events limit the establishment of WLs within the main channel's bottom. Low functions and values for the physical wetland characteristics e.g. flood storage, food chain support, diversity, etc.

Approved by HQUSACE 3/92

PROJECT NAME Plevna-Baker

DATE 24-25 JAN 96

WETLAND SITE # 5

STATION (S) 1584.5

MILEPOST 78.6 CULVERT

APPROXIMATE ACREAGE 256□′ within 300 ft. corridor (91.5m.)

ACREAGE WITHIN ROW N/A (Alignment shifts south).

HYDROLOGIC TYPES	II A	AREA	100%	ACREAGE	0.005 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - An insignificant wl of very small size and culvert-associated. A small area of drain coming from the south crosses the highway via a 30" cement culvert. Hydraulics have dug two small pools at each culvert end that are mostly barren with sparse fringe of curly dock, prairie cordgrass and smartweed. Northside wl is presently a 4'x8' (32 sq.ft) iced depression, South culvert pool is 3'x8' of same for (24 sq ft.). An additional 200 sq.ft. are found in 2 (10x10 depressions) slightly west of the culvert as part of the borrow pit. They contain wetsite grasses e.g. prairie cordgrass, no sedges, yet a few plants of smartweed, sites are verging on ephemeral and have little to no function/value due to smallness and proximity of highway.

No shrub or riparian cover for quite some distance,

Fallon County soils survey does not list the general site as a hydric soil, though they might occur in these small, wetted depressions.

The site is being considered as intermittent (ephemeral) wetland in spite of inconclusive soils data. Considering its small size, it is probably not worth future soils determination. No function or values for all practical purposes. No riparian present.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

- A. Floating
- B. Rooted Submerged
- C. Rooted Floating-leaved
- D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna-Baker
WETLAND SITE # 5
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
LAND	Spartina pectinata	prairie cordgrass	grass	OBL
	Rumex crispus	curly dock	forb	FACW
	Polygonum (sp.)	smartweed (sp.)	forb	likely FACW
AND	Bromus inermis	smooth brome	grass	UPL
	Agropyron (sp.)	wheatgrass (sp.)	grass	UPL

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna - Baker WL site 5
Applicant/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 Jan 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? influenced by culvert Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Rumex crispus	F	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ______

Remarks: Very little vegetation or diversity.

HYDROLOGY

X Recorded Data (Describe in Remarks):
  ___ Stream, Lake, or Tide Gauge
  X Aerial Photographs
  ___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: iced depression (in.)

Depth to Free Water in Pit: unk (in.)

Depth to Saturated Soil: unk (in.)

Wetland Hydrology Indicators:
Primary Indicators:
  X Inundated
  X Saturated in Upper 12 Inches
  ___ Water Marks
  ___ Drift Lines
  ___ Sediment Deposits
  X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
  ___ Oxidized Root Channels in Upper 12 Inches
  ___ Water-Stained Leaves
  ___ Local Soil Survey Data
  ___ FAC-Neutral Test
  ___ Other (Explain in Remarks)

Remarks: both culvert pools iced over but less than several inches deep, sloped fields to the south supply this site intermittently.

SOILS

Map Unit Name
(Series and Phase): appears as Bonfri - Cambeth Complex

02 to 08 per cent
Drainage Class: unk.
Field Observations
Confirm Mapped Type? Yes [✓ No]

Taxonomy (Subgroup):

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
	This	is not	a hydric	soil in general	but does
	not	rule out	the possible	presence of	small pockets
	of	hydrics in	wettest of	sites.	

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: WL soils unverified due to frost. General map unit which contains this site is non-hydric. Testing would be required to confirm hydric conditions in these infrequently wetted sites.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? [✓ Yes No]
possibly - see remarks above

(Circle)
probably →
Is this Sampling Point Within a Wetland? [✓ Yes] No
though cannot confirm

Remarks: Little to no function / value as wetland. Any wetlands present were likely encouraged by placement of culvert in 1930's and creation of borrow pit, as these backed up the natural flows.

Approved by HQUSACE 3/92

MDT WETLAND SITE EVALUATION FORM

Project Name: Plevna - Baker Number: STPP 2-2(4) 70 Control No. 1276

Evaluation Date: 24-25 Jan 96 Evaluator(s): R.S. HARRIS / J. LOSTRACCO Site Name(s): RIPARIAN ASSOCIATED

Site Location: MP 70.8, 77.4, 79.8 81.2, 81.4, 81.9 (# 2, 4, part of 7, 8, 9, 10)

Estimated Total Wetland Size: .14 hec (0.32 ac.) Estimated Size Within ROW: 300' corridor delineation

Wetland Classification (from MDT Wetland Classification Scheme)

	Water Regime (e.g., Permanently flooded)	Wetland Type (e.g., Marsh)	Dominant Species	Modifier (e.g., Impounded)	% of Wetland
		creek bottoms are	mostly bare channel w/		
creeks →	Seasonally Flooded	shrub/deciduous for.	prairie cordgrass / eleocharis sedges	riparian	95%
rted drains	Temporarily Flooded	bare substrate, w/	traces of curly dock and prairie cordgrass	riparian	5%

Brief Descriptive Summary: see detailed field narratives

Functions and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

Size	Score
> 10 acres	= 10
6 to 10 acres	= 5
1 to 5 acres	= 3
[✓ < 1 acre]	[✓ = 1]

Calcul. Score =	Rating (circle)	Point Value = (circle)
[✓ 1 =]	[✓ Low]	[✓ = 1]
3 =	Moderate	= 3
5 =	High	= 5
10 =	Except.	= 10

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

# of Wetland Types (not including open water types)	(1 Multiply 1) Score	Score	Open Water
≥ 3 types	= 5	[✓ 2 =]	Present — sporadically (exc. MP 70.8)
2 types	= 3	1 =	Absent
[✓ ≤ 1 type]	[✓ = 1]		

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1 =	Low	= 1
[✓ 2]-3 =	[✓ Moderate]	[✓ = 3]
5-6 =	High	= 5
10 =	Except.	= 10

3. Food Chain Support (Function of habitat diversity [HD] and wetland size)

HD Rating (from #2 above)	(1 Multiply 1) Score	Score	Size
Low	= 1	5 =	> 5 acres
[✓ Moderate]	[✓ = 2]	3 =	1-5 acres
High	= 3	[✓ 1 =]	< 1 acre
Exceptional	= 4		

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1-[✓ 2 =]	[✓ Low]	[✓ = 1]
3-9 =	Moderate	= 3
10-15 =	High	= 5
20 =	Except.	= 10

4. Habitat for Federally-listed or Proposed Threatened or Endangered Species

Wetland Receives:	Score
Regular use by T&E species or falls within designated critical habitat	= 10
Occasional T&E species use (e.g., infrequent, sporadic use)	= 5
Incidental T&E species use (e.g., chance, inconsequential use)	[✓ = 3]
No known or suspected T&E species use	= 0

Calcul. Score =	Rating (circle)	Point Value = (circle)
0 =	None	= 0
[✓ 3 =]	[✓ Moderate]	[✓ = 3]
5 =	High	= 5
10 =	Except.	= 10

5. Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program

Wetland Provides:	Score
Breeding or other crucial habitat	= 10
Habitat that is used regularly	= 5
Habitat that is used occasionally (e.g., infrequent, sporadic use)	= 3
Habitat that is used incidentally (e.g., chance, inconsequential use)	[✓ = 1]
No known or suspected habitat	= 0

Calcul. Score =	Rating (circle)	Point Value = (circle)
0 =	None	= 0
[✓ 1 =]	[✓ Low]	[✓ = 1]
3 =	Moderate	= 3
5 =	High	= 5
10 =	Except.	= 10

6. General Wildlife & Fish Habitat (Non-T&E)

UPLAND BIRDS - significant

Criteria I (apply to each group)	
Substantial or significant use	= S
Occasional or moderate use	= M
Little or no perceived use	= L

S Songbirds
S Raptors
M Waterfowl
L Marsh & Shorebirds
M Rodents & Insectivores
M Carnivores
M Ungulates
L Herptiles
L Fish
L Invertebrates

Criteria II (apply to entire group)	Score
≥ 6 S's or ≥ 8 M's	= 10
3-5 S's or 6-7 M's	= 5
1-2 S's or 3-5 M's	[✓ = 3]
No S's and ≤ 2 M's	= 1

Calculated Score = 3

Calcul. Score =	Rating (circle)	Point Value = (circle)
1 =	Low	= 1
[✓ 3 =]	[✓ Moderate]	[✓ = 3]
5 =	High	= 5
10 =	Except.	= 10

7. Flood Control & Storage (Functions of floodwater proximity, wetland size, vegetative composition, water regime, and site morphology.)

For sites within a discernable floodplain (Based on proximity to floodwaters, FEMA maps, flood deposits, etc.):

(1 Multiply 1)

Wetland Size	Score	Score	Vegetative Composition
> 5 acres	= 5	3 =	> 50% emergent or shrub or combination
1-5 acres	= 3	2 =	10-50% emergent or shrub or combination
[✓ < 1 acre]	[✓ = 1]	[✓ 1 =]	< 10% emergent or shrub or combination

Calculated Score = 1

For sites not within a discernable floodplain:

(1 Multiply 1)

Water Regime	Score	Score	Site Morphology
Permanently flooded or intermittently exposed	= 2	1 =	Basin
Semi-permanently or seasonally flooded	= 1	0.5 =	Channel
Saturated or temporarily flooded	= 0.5		

Calcul. Score =	Rating (circle)	Point Value = (circle)
0.25-1 =	Low	= 1
2-6 =	Moderate	= 3
9-10 =	High	= 5
15 =	Except.	= 10

8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

Likelihood to Receive Sediment/Pollutants	Score	Score	Emergent Vegetative Component
Substantial accumulations evident or likely	= 2	5 =	> 50% emergent
Moderate accumulations evident or likely	= 1	3 =	10-50% emergent
Accumulations not evident and unlikely	[✓ = 0.5]	[✓ 1 =]	< 10% emergent

Calculated Score = 0.5

Calcul. Score =	Rating (circle)	Point Value = (circle)
[✓ .5]-1.5 =	[✓ Low]	[✓ = 1]
2-3 =	Moderate	= 3
5-10 =	High	= 5

9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake (subject to wave action), river, stream, or other defined drainage; if does not apply, Point Value is 0.)

Size of Rooted Vegetative Component	Score
> 5 acres	= 5
1-5 acres	= 3
[✓ < 1 acre]	[✓ = 1]

Calculated Score = 1

Calcul. Score =	Rating (circle)	Point Value = (circle)
0 =	None	= 0
1 =	Low	= 1
3 =	Moderate	= 3
5 =	High	= 5

10. Nutrient Cycling (Potential to accumulate, process, and export nutrients [expressed as organic matter].)

(1 Multiply 1)

Organic Matter Accumulation	Score	Score	Proximity to Other Aquatic Habitats
Substantial accumulation evident	= 3	[✓ 3 =]	Adjacent or contiguous to other aquatic habitats
Little to no accumulation evident	[✓ = 1]	1 =	Isolated basin

seasonally

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1 =	Low	= 1
[✓ 3 =]	[✓ Moderate]	[✓ = 3]
9 =	High	= 5

11. Groundwater Discharge/Recharge (Expressed as function of wetland size and water regime.)

(1 Multiply 1)

Wetland Size	Score	Score	Water Regime
> 5 acres	= 5	3 =	Permanently flooded or intermittently exposed
1-5 acres	= 3	[✓ 2 =]	Semi-permanently or seasonally flooded
[✓ < 1 acre]	[✓ = 1]	1 =	Saturated or temporarily flooded

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1-[✓ 2 =]	[✓ Low]	[✓ = 1]
3-9 =	Moderate	= 3
10-15 =	High	= 5

12. Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

Frequency of Occurrence in Montana	Score	Score	Replacement Potential
Rare	= 3	5 =	Irreplaceable ecological functions
[✓ Common]	[✓ = 2]	3 =	Ecological functions replaceable with difficulty
Abundant	= 1	[✓ 1 =]	Ecological functions readily replaceable

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1-[✓ 2 =]	[✓ Low]	[✓ = 1]
3-6 =	Moderate	= 3
9-10 =	High	= 5
15 =	Except.	= 10

13. Recreation/Education Potential

(1 Multiply 1)

Recreation Potential	Score	Score	Education Potential
High	= 3	5 =	High
general area — Moderate	[✓ = 2]	[✓ 3 =]	Moderate
wetlands — Low	[✓ = 1]	1 =	Low

Calculated Score =

Calcul. Score =	Rating (circle)	Point Value = (circle)
1-2 =	Low	= 1
[✓ 3]-6 =	[✓ Moderate]	[✓ = 3]
9-15 =	High	= 5

Function & Value Summary and Overall Wetland Rating

for Wetland Site(s): MP 70.0, 77.4, 81.2, 81.4; 81.9
2, 4, part of 7, 8, 9, 10

Function & Value Parameters	Point Values	Ratings
1. Wetland Size	1	LOW
2. Habitat Diversity	3	MOD
3. Food Chain Support	1	LOW
4. T&E Species Habitat	3	MOD
5. MNHP Species Habitat	1	LOW
6. General Fish & Wildlife Habitat	3-5	MOD-HIGH
7. Flood Control & Storage	1	LOW
8. Sediment Filtration	1	LOW
9. Erosion Control	< 1	LOW
10. Nutrient Cycling	3	MOD
11. Groundwater Discharge/Recharge	1	LOW
12. Uniqueness	1	LOW
13. Recreation/Education Potential	3	MOD
TOTAL POINT VALUE	23-25	

Overall Wetland Rating (Circle appropriate class based on the criteria outlined below):

Class I Class II Class III Class IV

Class I Wetland - Must satisfy one of the following criteria:

- Total Point Value of 65 or more; or
- "Exceptional" ratings for T&E Species Habitat or Flood Control & Storage or Uniqueness.

Class II Wetland - Does not satisfy criteria for Class I and:

- Total Point Value of 40 - 64; or
- "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- "High" ratings for Food Chain Support or Uniqueness.

Class III Wetland - Does not satisfy criteria for Class I, Class II, or Class IV and:

- Total Point Value of 26 - 39.

[✓ Class IV Wetland] - Does not satisfy criteria for Class I, Class II, or Class III and:

- Total Point Value less than 26; and
- "Low" ratings for Wetland Size and Habitat Diversity.

[illegible]

(adapted from Windell et al.[1986] and Cowardin et al.[1979])

Water Regime (Cowardin et al. 1979)	Vegetation Type	Substrate	Wetland Type	Modifiers (Cowardin et al. 1979)
• Permanently flooded • Intermittently exposed • Semi-permanently flooded • Seasonally flooded • Saturated • Temporarily flooded	Rooted floating, floating-leaved, or submergent	Water, mineral, or organic	Vegetated open water	• Excavated ditch • Excavated basin • Impounded • Diked • Farmed • Grazed • Partly Drained • Riparian
	Emergent (erect, rooted, herbaceous hydrophytes [includes mosses and lichens])	Organic (peat, muck)	Fen (typically "peatland" dominated by sedges and grasses)	
			Bog (typically "peatland" dominated by sphagnum mosses)	
			Marsh (substrate can be "muck" or mineral; not typically dominated by sedges and grasses)	
		Mineral	Wet Meadow (dominated by sedges and grasses; rarely floods)	
			Marsh (substrate can be "muck" or mineral; not typically dominated by sedges and grasses)	
	Shrub (woody vegetation less than 20 feet tall)	Organic (peat, muck)	Carr (shrub-dominated fen)	
			Shrub-bog (shrub-dominated bog)	
		Mineral	Shrub	
	Forested (woody vegetation greater than 20 feet tall)	Organic or Mineral	Coniferous Forested	
			Deciduous Forested	
	Unvegetated	Mineral or Water	Open Water	
			Bare Substrate	

Permanently flooded: Water covers land surface throughout the year in all years.

Intermittently exposed: Surface water present throughout the year except during years of extreme drought.

Semipermanently flooded: Surface water persists throughout growing season in most years.

Seasonally flooded: Surface water present for extended periods, especially early in the growing season, but usually absent by end of season.

Saturated: Substrate saturated to surface during growing season, but surface water seldom present.

Temporarily flooded: Surface water present for brief periods during growing season, but water table well below surface most of the year.

Excavated ditch or basin: Lies within basin or channel excavated by man.

Impounded: Created or modified by barrier or dam which purposefully or unintentionally obstructs water outflow.

Diked: Created or modified by man-made barrier or dike designed to obstruct the inflow of water.

Farmed: Soil surface has been mechanically or physically altered for crop production, but hydrophytes will reestablish if farming discontinued.

Grazed: Vegetation grazed by domestic stock.

Partly Drained: Water level has been artificially lowered, but soil moisture sufficient to support hydrophytes.

Riparian: Of, on, or pertaining to the bank of a natural watercourse.

PROJECT NAME Pleuna-Baker

DATE 24-25 JAN 96

WETLAND SITE # 6

STATION (S) 1633 - 1640 (to 1642 south)

MILEPOST 79.7 - 79.8 drainage ditches / borrow

APPROXIMATE ACREAGE 3400□' within 300□' corridor

ACREAGE WITHIN ROW N/A (Alignment shifts south)

HYDROLOGIC TYPES	II A	AREA	100%	ACREAGE	0.08 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - Two long, linear areas of wetland within the borrow areas.

Beginning near the two cement culverts (79.65), wet-site grasses and Forbs extend clear to Red Butte Creek. North of the road, the WL is approx. 8-10' in width, predominated by prairie cordgrass. It is supplied by a man-made drainage south of the highway.

WL south of the highway is much narrower: a 2 ft. channel of sporadic sedges, prairie cordgrass, and smartweed species,

No riparian cover or shrubs, just grassy borrow pits. Function and value is low both north and south of the road. Little vegetative diversity overall.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

- A. Floating
- B. Rooted Submerged
- C. Rooted Floating-leaved
- D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker
WETLAND SITE # 6
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
AND	Spartina pectinata	prairie cordgrass	grass	OBL.
	Carex (sp.)	sedge (sp.)	grass	FACW to OBL.
	Polygonum (sp.)	smartweed (sp.)	forb	FACW likely
	Agrostis alba	red top bentgrass	grass	FACW
ND	Bromus inermis	smooth brome	grass	UPL
	Agropyron (sp)	wheatgrasses	grass	FACU to UPL

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna - Baker   WL Site 6
[✓ Applicant]/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? Highway const. Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Carex (sp.)	G	FACW	10.		
3. Polygonum	F	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ______

Remarks: Plant communities are linear and lack diversity.

HYDROLOGY

_X_ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
_X_ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0" (in.)
Depth to Free Water in Pit: unk (in.)
Depth to Saturated Soil: unk (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
_X_ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Soils modified by previous const.

Drainage Class: N/A

Taxonomy (Subgroup):

Field Observations Confirm Mapped Type? Yes [✓ No]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		Ground frozen			

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)

Wetland Hydrology Present? [✓ Yes] No

Hydric Soils Present? [✓ Yes] No likely

likely (Circle)

Is this Sampling Point Within a Wetland? [✓ Yes] No

Remarks: Though soils can not be confirmed, they are likely hydric in the lowest of depressions where run off has accumulated for the past 60 years (const. in mid-1930's).

Approved by HQUSACE 3/92

PROJECT NAME Plevna - Baker DATE 24-25 JAN 96

WETLAND SITE # 7
STATION (S) 1640 - 1643
MILEPOST 79.8 Red Butte Creek

APPROXIMATE ACREAGE 8190□' within 300 ft. corridor
ACREAGE WITHIN ROW N/A (Alignment shifts south)

HYDROLOGIC TYPES	II A/B	AREA	80%/20%	ACREAGE	0.19 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - Other than a small portion of riparian cover north of the road and immediately west of the creek, area wetlands lack association with shrub communities. This may be caused by the upstream presence of Red Butte Reservoir which once retained normal flows from reaching lower portions of the creek. This creek, near the highway, is uncharacteristically without riparian cover as found along both Timber and Sandstone Creeks. Accordingly, substantial riparian is found around Red Butte Reservoir and includes mature trees of plains cottonwood not found elsewhere on the project. Not too long ago, the reservoir cut and breached the dam. Now dewatered and weedy, it appears to have high potential as a WL mitigation site, if needed,

One project WL is a continuation of channel from Site 6. It begins on northside of road at an above ground culvert and one mature cottonwood tree on west side of creek. Extending roughly 250', it contains hardstem bulrush, prairie cordgrass, red top bentgrass, and spikerush rimmed by young chokecherry bushes. This is the better WL on site for the ground cover it provides. Within the main creek channel is prairie cordgrass and hardstem bulrush heavily grazed by cattle. Cows camping under the bridge have reduced this area to bare substrate. South of bridge, WL is confined to a small, shallow, frozen pool some 10'x 12', rimmed with prairie cordgrass. WLs remain of low function and value, further reduced by heavy grazing. Creek does not appear to receive the scouring impacts of Timber Creek.

Exact map unit name of WL soils is unknown but areas surrounding the site are listed as hydric - even on terrain slightly higher than the creek. Channel, as it extends south of bridge was occasionally ice and snow covered.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker

WETLAND SITE # 7

DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
LAND	Spartina pectinata	prairie cordgrass	grass	OBL
	Scirpus acutus	hardstem bulrush	forb	OBL
	Eleocharis (sp.)	spikerush (sp.)	grass	FACW to OBL
	Agrostis alba	red top bentgrass	grass	FACW
	Polygonum (sp.)	smartweed (sp.)	forb	likely FACW
AND	Prunus virginiana	chokecherry	shrub	FACU
	Bromus inermis	smooth brome	grass	UPL
	Agropyron (sp.)	wheatgrass (sp.)	grass	FACU to UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU likely
	Brassica (sp.)	mustard (sp.)	forb	UPL.
	Artemisia tridentata	big-leafed sagebrush	shrub	UPL.
tree	Populus deltoides	plains cottonwood	tree	FAC

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna - Baker WL Site 7
Applicant/Owner: MDT
Investigator: RS Harris

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2. Scirpus acutus	F	OBL	10.		
3. Eleocharis sp.	G	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Small communities of hydrophytic vegetation showing heavy grazing impacts in main river channel. Areas left ungrazed provide decent cover for various wildlife

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
  ☐ Stream, Lake, or Tide Gauge
  ☒ Aerial Photographs
  ☐ Other
☐ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0-3" (in.)

Depth to Free Water in Pit: unk (in.)

Depth to Saturated Soil: unk (in.)

Wetland Hydrology Indicators:
Primary Indicators:
  ☐ Inundated
  ☐ Saturated in Upper 12 Inches
  ☒ Water Marks
  ☒ Drift Lines
  ☐ Sediment Deposits
  ☒ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
  ☐ Oxidized Root Channels in Upper 12 Inches
  ☐ Water-Stained Leaves
  ☐ Local Soil Survey Data
  ☐ FAC-Neutral Test
  ☐ Other (Explain in Remarks)

Remarks: see field narrative (attached) for circumstances as to the creek and the upstream reservoir (now defunct.).

SOILS

Map Unit Name (Series and Phase): unavailable

Drainage Class:

Taxonomy (Subgroup):

Field Observations Confirm Mapped Type? Yes [✓ No]

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Even a few surrounding areas of slightly higher elevation are mapped as hydric soils :

56A Havre loam 0 to 2 per cent slopes

57A Harlem, silty clay, saline, 0 to 2 percent slopes

WL site 7 likely falls into either of these groups.

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: See above

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)

Wetland Hydrology Present? [✓ Yes] No

Hydric Soils Present? likely → [✓ Yes] No

(Circle)

Is this Sampling Point Within a Wetland? most likely → [✓ Yes] No

Remarks: changes in circumstance for Red Butte Reservoir leave this site in a state of flux. Site likely receives more flows than before the upstream breach occurred.

Approved by HQUSACE 3/92

PROJECT NAME Plevna-Baker DATE 24, 25 JAN 96

WETLAND SITE # 8
STATION (S) 1708
MILEPOST 81.2 CULVERT

APPROXIMATE ACREAGE 365 □' within 300 ft. corridor (91.5 m.).
ACREAGE WITHIN ROW N/A (Alignment shifts south).

HYDROLOGIC TYPES	III A	AREA	100%	ACREAGE	365 □'
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - WL north of road consists of a 10'x15' culvert pool and 4' x 50' wide drainage extending north from the pool to distant creek. WL Vegetation primarily prairie cordgrass with traces of curly dock.

South of the road exists a 3'x5' culvert pool, iced over, and shallow. WLs themselves have little to no function and value due to small size/ lack of diversity.

Of more value is the mature riparian cover immediately north of the road. The alignment's shift south should leave this unaffected. Upland bird tracks were evident through portions of this cover.

Little else worth reporting due to the insignificance/smallness of WL. Culvert is a 4 ft. cement structure.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker

WETLAND SITE # 8

DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
ETLAND	Spartina pectinata	prairie cordgrass	grass	OBL
	Rumex crispus	curly dock - limited	forb	FACW
PLAND	Fraxinus pennsylvanica	green ash	tree	FAC
	Prunus virginiana	chokecherry	shrub	FACU
	Crataegus (sp.)	thornapple/hawthorn	shrub	FAC
	Rosa (sp.)	rose (sp.)	shrub	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU
	Agropyron (sp.)	wheatgrass (sp.)	grass	FACU to UPL
	Bromus inermis	smooth brome	grass	UPL
	Symphoricarpos occidentalis	western snowberry	shrub	UPL

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pleuna-Baker WL Site 8
[✓ Applicant]/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ____

Remarks: an icy depression and small channel vegetated in prairie cordgrass. Total WL area is 365 sq. ft. Rumex crispus represented only.

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
  ☐ Stream, Lake, or Tide Gauge
  ☒ Aerial Photographs
  ☐ Other
☐ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0-6" (in.)
Depth to Free Water in Pit: unk (in.)
Depth to Saturated Soil: unk. (in.)

Wetland Hydrology Indicators:
Primary Indicators:
  ☒ Inundated
  ☒ Saturated in Upper 12 Inches
  ☐ Water Marks
  ☐ Drift Lines
  ☐ Sediment Deposits
  ☒ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
  ☐ Oxidized Root Channels in Upper 12 Inches
  ☐ Water-Stained Leaves
  ☐ Local Soil Survey Data
  ☐ FAC-Neutral Test
  ☐ Other (Explain in Remarks)

Remarks: Larger depression is on the downstream side of culvert. Probably formed by the culvert's hydraulic - bare substrate mixed with wet-site grasses. Intermittently saturated. A small creek and reservoir lie north of the site, flows on site eventually accessing the creek.

SOILS

Map Unit Name (Series and Phase): UNAVAILABLE FOR IMMED. SITE

Drainage Class: ___

Field Observations Confirm Mapped Type? Yes [✓ No]

Taxonomy (Subgroup): ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		Ground frozen -	samples	unobtainable	

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Surrounding map units are not listed as hydric, although the small sites of wl likely are.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)

Wetland Hydrology Present? [✓ Yes] No

Hydric Soils Present? likely [✓ Yes] No

Is this Sampling Point Within a Wetland? likely [✓ Yes] No (Circle)

Remarks: Although soils remain unconfirmed, the 350 sq. ft plus area is suspected to be wetland. It is of very low Function and value. More significant is the associated riparian cover.

Approved by HQUSACE 3/92

PROJECT NAME Plevna- Baker

DATE 24-25 JAN 96

WETLAND SITE # 9

STATION (S) 1727

MILEPOST 81.4 Stockpass and Drain

APPROXIMATE ACREAGE 150 □' within 300 ft. corridor (91.5m).

ACREAGE WITHIN ROW N/A (Alignment shifts south)

HYDROLOGIC TYPES III A AREA 100% ACREAGE 150 □'

AREA ACREAGE

AREA ACREAGE

riparian associated though no river or stream immed. present.

NARRATIVE - Though likely meeting the three WL parameters, this site is an insignificant patch of grazed-off prairie cordgrass. It covers a mere 150 sq.ft at the south end of a 4 ft. corrugated metal pipe just east of the stockpass. It has no function or value.

There are no WLs north of the highway nor are any associated w/ the bridged stockpass. Any resource value lies in the adjacent riparian cover, not in WL. The alignment's shift south should benefit this small copse of riparian shrubs and trees found on the north side of road.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

- A. Floating
- B. Rooted Submerged
- C. Rooted Floating-leaved
- D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna- Baker
WETLAND SITE # 9
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
TLAND	Spartina pectinata	prairie cordgrass	grass	OBL
PLAND	Prunus virginiana	chokecherry	shrub	FACU
	Crataegus (sp.)	hawthorn/thornapple	shrub	FAC
	Rosa (sp.)	rose (sp.)	shrub	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU+
	Agropyron (sp.)	wheatgrass species	grass	FACU to UPL
	Bromus inermis	smooth brome	grass	UPL
	Symphoricarpos occidentalis	western snowberry	shrub	UPL
	Elaeagnus angustifolia - regen	russian olive (regen)	shrub	FAC
	Fraxinus pennsylvanica	green ash	tree	FAC

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna- Baker WL Site 9
[✓ Applicant]/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 JAN 96
County: Fallon
State: Montana

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ____

Remarks: A small 190 sq.ft patch of prairie cordgrass at mouth of culvert - thats it. Grazed-off, has no function or value.

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0" (in.)

Depth to Free Water in Pit: unk (in.)

Depth to Saturated Soil: unk. (in.)

Wetland Hydrology Indicators:
- Primary Indicators:
  - ___ Inundated
  - ___ Saturated in Upper 12 Inches
  - ___ Water Marks
  - ___ Drift Lines
  - ___ Sediment Deposits
  - X Drainage Patterns in Wetlands
- Secondary Indicators (2 or more required):
  - ___ Oxidized Root Channels in Upper 12 Inches
  - ___ Water-Stained Leaves
  - ___ Local Soil Survey Data
  - ___ FAC-Neutral Test
  - ___ Other (Explain in Remarks)

Remarks: Hydrology for this small WL was likely induced by water backing up at the culvert's entrance.

SOILS

Map Unit Name
(Series and Phase): ground Frozen - soils unconfirmed

Drainage Class: ______

Field Observations
Confirm Mapped Type? Yes [✓ No]

Taxonomy (Subgroup): ______

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: may or may not be hydric for such a small area (190 sq.ft)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? mildly — [✓ Yes] No
Hydric Soils Present? questionable — Yes No

(Circle)
Is this Sampling Point Within a Wetland? perhaps → [✓ Yes] No

Remarks: For such a small area, cannot confirm presence of WL without soil samples.

Approved by HQUSACE 3/92

PROJECT NAME Plevna - Baker

DATE 24-25 JAN 96

WETLAND SITE # 10
STATION (S) 1753
MILEPOST 81.9 CULVERT

APPROXIMATE ACREAGE 60 □' within 300 ft. corridor (91.5 m.)
ACREAGE WITHIN ROW N/A (Alignment shifts south).

HYDROLOGIC TYPES	III A	AREA	100%	ACREAGE	60 sq.ft.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - As for the previous Site 9, wl Site 10 is comprised of three small pools at culvert ends. And as before the significant resource is the associated riparian cover rather than the insignificant patches of wls. The three sites combine for only 60 sq.ft. of bare substrate with a fringe of curly dock, prairie cordgrass, and traces of red top bentgrass. No function or value with the limited size.

Culverts are 30" and 36" corrugated metal pipe.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

A. Floating
B. Rooted Submerged
C. Rooted Floating-leaved
D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

A. Herbaceous
B. Shrub
C. Forested
D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker
WETLAND SITE # 10
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
ETLAND	Rumex crispus	curly dock	forb	FACW
	Spartina pectinata	prairie cordgrass	grass	OBL
	Agrostis alba	redtop bentgrass	grass	FACW
PLAND	Prunus virginiana	chokecherry	shrub	FACU
	Crataegus (sp.)	thornapple (sp.)	shrub	FAC
	Rosa (sp.)	rose (sp.)	shrub	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU to UPL
	Agropyron (sp.)	wheatgrass (sp.)	grass	FACU to UPL
	Bromus inermis	smooth brome	grass	UPL
	Symphoricarpos occidentalis	western snowberry	shrub	UPL
	Elaeagnus angustifolia - regen	russian olive	shrub	FAC
	Sheperdia argentia	buffaloberry	shrub	non-ind.
	Prunus americana	American plum	tree	FACU
	Melolotus indica	sweet clover	forb	FACU
	Grindelia squarosa	curly-cup gumweed	forb	FACU

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna-Baker
[✓ Applicant]/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 Jan 96
County: Fallon
State: MT.

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rumex crispus	Forb	FACW	9.		
2. Spartina pectinata	G	OBL	10.		
3. Agrostis alba	G	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Traces of these species around small plunge pools (culverts). Little diversity or cover provided.

HYDROLOGY

X Recorded Data (Describe in Remarks):
 ___ Stream, Lake, or Tide Gauge
 X Aerial Photographs
 ___ Other
___ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0-6" (in.)

Depth to Free Water in Pit: unk (in.)

Depth to Saturated Soil: unk (in.)

Wetland Hydrology Indicators:
Primary Indicators:
 X Inundated - in plunge pools
 ___ Saturated in Upper 12 Inches
 ___ Water Marks
 ___ Drift Lines
 ___ Sediment Deposits
 X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
 ___ Oxidized Root Channels in Upper 12 Inches
 ___ Water-Stained Leaves
 ___ Local Soil Survey Data
 ___ FAC-Neutral Test
 ___ Other (Explain in Remarks)

Remarks: Hydrology is likely present as a result of the culverts' action creating small plunge pools. The greater area was obviously a historic drainage prior to road construction - Note reservoir and creek north of highway.

SOILS

Map Unit Name
(Series and Phase): ground frozen - soils unconfirmed
Drainage Class: ______
Field Observations
Confirm Mapped Type? Yes [✓ No]
Taxonomy (Subgroup): ______

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: pooled areas are likely to be hydric although surrounding map units are non.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? [✓ Yes] No
likely

(Circle)
likely →
Is this Sampling Point Within a Wetland? [✓ Yes] No

Remarks: Soil samples needed in pooled areas to confirm. Consider that only 60 sq.ft. are suspected as wetland.

Approved by HQUSACE 3/92

PROJECT NAME Plevna - Baker

DATE 24-25 JAN 96

WETLAND SITE # 11
STATION (S) 1782
MILEPOST 82.6 Baker Overflow channel

APPROXIMATE ACREAGE 710 □′ within 150′ corridor (45.7 m.)
ACREAGE WITHIN ROW N/A (No Alignment shift, w/ temp. detour to south)

HYDROLOGIC TYPES	IIA	AREA	100%	ACREAGE	0.02 ac.
		AREA		ACREAGE	
		AREA		ACREAGE	

NARRATIVE - WLs largely comprised of a 2 ft wet-site grass ditch which branches once north of the bridge. Poor vegetative diversity, value and function for this small stringer of WL. (further diminished by its immediate location next to the town of Baker). Area beneath bridge is bare substrate approx. 15′ x 30′ in size. Channel is steep sided enough to retard saturation of its banks.

Virtually no riparian cover associated w/ the channel other than a few nearby russian olive trees.

Soils are unconfirmed with no map unit available.

Wetland Hydrologic Category and Vegetative Type (Novitski, 1979)

I. Hydrologic Cat.: Sites with Permanent Shallow Water (6.6 ft.)

Vegetative type

- A. Floating
- B. Rooted Submerged
- C. Rooted Floating-leaved
- D. Rooted Emergent

II. Hydrologic Cats.: Sites with Seasonal or Permanent High Water Tables, but WITHOUT Permanent Standing Water.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

III. Hydrologic Cat.: Riparian Sites Adjacent to Streams or Rivers with Seasonally Saturated Soil Conditions.

Vegetative type

- A. Herbaceous
- B. Shrub
- C. Forested
- D. Unvegetated

Sites may have more than one hydrologic category and vegetative type present. The estimated relative percent of each vegetative type should be recorded under 'Area'. 'Size' entry is for estimated area in hectares/acres. A site with more than one hydrologic and vegetative type could be characterized as a I A/C, 2080; II B/C, 40/60, indicating that a permanently flooded, shallow water wetland is present, consisting of floating and rooted emergent vegetative types in a 20:80 ratio AND a community with seasonal or permanent high water table consisting of shrub and forested vegetative types in a 40:60 ratio. Total size can be estimated to the nearest hectare/acre based on field observations, measured on suitable aerial photography, or calculated from road plans, as appropriate.

Conversions
# of square feet X .000022957-ACRES, I Hectare-2.47 Acres

ACRES X .40485 = HECTARES

PROJECT NAME Plevna - Baker
WETLAND SITE # 11
DATAPOINT # N/A

	GENUS/SPECIES	COMMON NAME	STRATA	INDICATOR
LAND	Spartina pectinata	prairie cordgrass	grass	OBL
AND	Symphoricarpos occidentalis	western snowberry	shrub	UPL
	Rosa (sp.)	rose (sp.)	shrub	UPL
	Grindelia squarrosa	curly-cup gumweed	forb	FACU
	Artemesia tridentata	big-leafed sagebrush	shrub	UPL
	Agropyron cristatum	crested wheatgrass	grass	FACU to UPL
	Bromus inermis	smooth brome	grass	UPL
	Elaeagnus angustifolia	russian olive	Tree	FAC

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Plevna-Baker Site 11
[✓ Applicant]/Owner: MDT
Investigator: R.S. Harris

Date: 24-25 JAN 96
County: Fallon
State: MT.

Do Normal Circumstances exist on the site? Yes [✓ No]
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID: N/A
Transect ID: N/A
Plot ID: N/A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Spartina pectinata	G	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ______

Remarks: sparse amounts of prairie cordgrass established linearly along channel. Little diversity, function or value.

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations: Ground Frozen

Depth of Surface Water: 0" (in.)

Depth to Free Water in Pit: unk (in.)

Depth to Saturated Soil: unk. (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: channel is known as Baker Overflow channel.

SOILS

Map Unit Name (Series and Phase): map unit unavailable but not listed as hydric in surrounding immed. area.

Drainage Class:

Field Observations Confirm Mapped Type? Yes [✓ No]

Taxonomy (Subgroup):

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		ground frozen	- soils	samples unavailable.	

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil unconfirmed, possibly hydric in lowest of depressions

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? likely [✓ Yes] No

Is this Sampling Point Within a Wetland? likely (Circle) [✓ Yes] No

Remarks: Low function and value throughout. Area under bridge is bare substrate.

Approved by HQUSACE 3/92